

PUBLIC HEALTH REPORTS

VOL. 36

SEPTEMBER 9, 1921

No. 36

VARIATIONS IN CASE FATALITY DURING THE INFLUENZA EPIDEMIC OF 1918.¹

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In order to determine whether or not the case fatality rate of influenza showed any variation during the course of the 1918 epidemic, and if so, whether this variation bore any relation to the morbidity incidence curve of the epidemic, the data gathered in surveys² made by the Public Health Service in 18 widely scattered localities were subjected to analysis from this point of view.

As stated in previous publications,³ house-to-house canvasses were made of sample areas in these localities⁴ immediately after the subsidence of the epidemic in 1918. In two of these localities (Baltimore and San Francisco) recanvasses of the same households were made after the recrudescence of the epidemic in January and February, 1919, and in one (Charles County, Md.) the canvass included the entire population and was made in the early spring of 1919. In these canvasses an enumeration by color, sex, age, and certain other conditions was made of the entire population in the areas selected, and a record, based on statements of responsible persons in each household, was secured of the occurrence of influenza, specifying for each case the date of onset, duration of, and severity of, the attacks, and the date of death in fatal cases.

¹ From the Statistical Office, United States Public Health Service, in cooperation with Field Investigations of Influenza. Acknowledgments for assistance in the preparation of this paper are made to Miss Mary L. King, of the Statistical Office, and to Mr. Rollo H. Britten, Assistant Statistician for the Influenza Commission, Metropolitan Life Insurance Co. Preliminary data upon which the conclusions in this paper are based were presented before the Vital Statistics Section of the American Public Health Association at New Orleans in October, 1919.

² Previous papers bearing on these surveys are:

Influenza in Maryland: Preliminary Statistics of Certain Localities, by W. H. Frost and Edgar Sydenstricker. *Public Health Reports*, vol. 34, No. 11, Mar. 14, 1919. Reprint No. 510.

The Epidemiology of Influenza, by W. H. Frost. *Jour. Am. Med. Assn.*, vol. 73; No. 5, Aug. 2, 1919. Reprinted in *Public Health Reports*, vol. 34, No. 33, Aug. 15, 1919. Reprint No. 520.

Statistics of Influenza Morbidity: With Special Reference to Certain Factors in Case Incidence and Case Fatality, by W. H. Frost. *Public Health Reports*, vol. 35, No. 11, Mar. 12, 1920. Reprint No. 566.

³ See especially Statistics of Influenza Morbidity: With Special Reference to Certain Factors in Case Incidence and Case Fatality, by W. H. Frost. *Public Health Reports*, vol. 35, No. 11, Mar. 12, 1920. Reprint No. 583.

⁴ New London, Conn., Baltimore, Quantico, Linganore, Frederick, Salisbury, Cumberland, Downsville, Lonaconing, and Charles County, Md., Little Rock, Ark., San Francisco, Calif., San Antonio, Tex., Louisville, Ky., Spartanburg, S. C., Des Moines, Iowa, Macon and Augusta, Ga.

In the analysis presented here the procedure followed was to compute the case fatality rate for as short successive periods of time as the data permitted and to determine as accurately as we could the trend of case fatality during the epidemic.⁵ Because of a tendency for cases to be reported as occurring on easily remembered dates, and because of small numbers of deaths by days, the smallest division of time which could be employed satisfactorily was the week. To determine the true weekly case fatality, deaths were necessarily allocated to the week in which the fatal cases had their onset. The weekly case fatality rate for all surveyed localities combined could be carried only through the week ending December 14, since the epidemic had ended by that time in some of the localities and the rates for succeeding weeks, therefore, would be based on those localities only in which the epidemic persisted beyond that date.

In Table I and in Figure 1 are given the weekly fatality rates in all surveyed localities combined. Some irregularity due to small numbers of cases and deaths will be noted. The same irregularity is present in the other fatality data given in this article and has made it desirable to employ a method of smoothing to indicate what appeared to be the general trend of the rates. Accordingly, curves were fitted to the data by the method of least squares.⁶ The smoothed rates are included in the table and graph.

TABLE I.—*Influenza case fatality by weeks from Sept. 1 to Dec. 14, 1918, among canvassed persons in all surveyed localities.^a*

Week ended—	Cases.	Deaths (by week of onset of case).	Fatality rate per 100 cases.	
			Actual.	Smoothed.
Sept. 7.....	260	4	1.38	0.97
14.....	298	3	1.01	1.58
21.....	747	12	1.61	1.93
28.....	1,338	36	2.69	2.06
Oct. 5.....	5,360	110	2.05	2.08
12.....	5,851	127	2.17	2.00
19.....	5,273	82	1.56	1.88
26.....	3,001	58	1.93	1.73
Nov. 2.....	2,278	33	1.45	1.60
9.....	1,286	18	1.40	1.48
16.....	1,787	21	1.18	1.42
23.....	1,285	18	1.40	1.38
30.....	1,820	34	1.87	1.37
Dec. 7.....	2,367	25	1.08	1.38
14.....	1,029	15	1.46	1.39

^a Including only persons of known ages.

^b The relative importance of pneumonia as a fatal sequela to influenza in successive periods of the epidemic could not be determined with a degree of accuracy to warrant any conclusion because of the small number of deaths when subdivisions into short periods were made and because of the doubtful accuracy of the individual records with respect to this point.

^c The formula used in this case and in the succeeding cases was $y = a + bx + cx^2 + dx^3 + ex^4$, x being the interval in weeks from the central point of the series, y the fatality rate for the given week, and a , b , c , d , and e constants determined directly from the data. Owing to irregularity at the ends of each series, it was found advisable to average the last two items at either end and replace each of these items with this average. In some instances it seemed desirable, for the same reason, to eliminate the extreme items at either end of the smoothed series.

September 9, 1921.

It will be noted that there was a sharp rise in case fatality at the beginning of the epidemic, that a peak was reached in the week ended October 5, and that after that time the fatality rate gradually fell.

Comparison with the morbidity curve of the epidemic is immediately suggested. In determining the case rates by weeks, account must be taken of the fact that, when a person develops the disease, he is temporarily eliminated from the susceptible population. In calculating the rates for each week, therefore, all cases which had

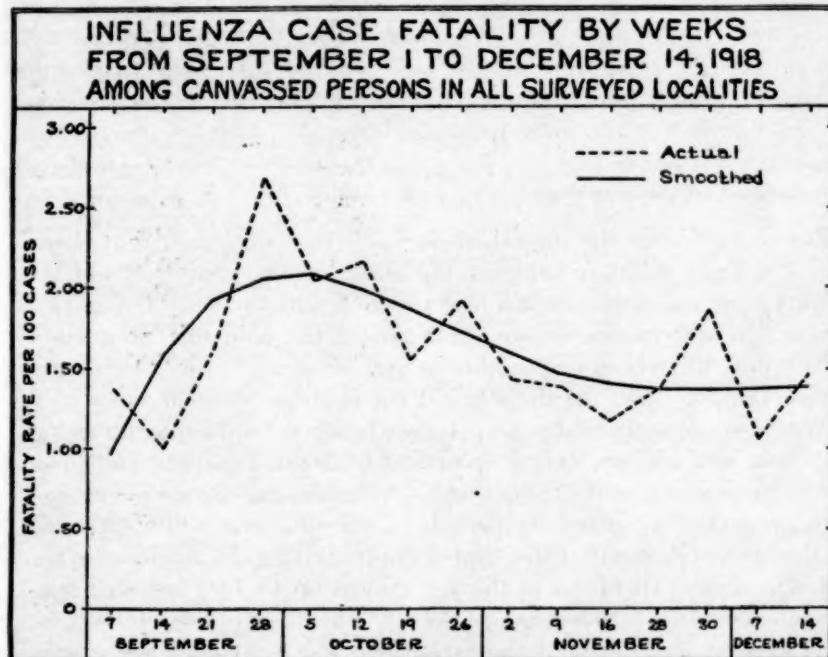


FIG. 1.

occurred during the epidemic prior to that week were deducted from the population. To make the case fatality and case incidence curves comparable, the rates were divided by their respective arithmetic averages. Table II presents the actual case rates by weeks from September 1 to December 14, the fatality rates already presented, and the smoothed indices based on these data.

TABLE II.—*Influenza case incidence and case fatality by weeks from Sept. 1 to Dec. 14, 1918, among canvassed persons in all surveyed localities.^a*

Week ended—	Weekly case rate per 1,000 persons.	Fatality rate per 100 cases (smoothed).	Indices.	
			Case incidence.	Case fatality (smoothed).
Sept. 7.....	2.04	0.97	0.11	0.60
14.....	2.10	1.58	.12	.98
21.....	5.29	1.93	.29	1.19
28.....	0.32	2.06	.53	1.27
Oct. 5.....	38.56	2.08	2.14	1.28
12.....	45.79	2.00	2.43	1.21
19.....	41.18	1.58	2.29	1.16
26.....	24.45	1.73	1.36	1.07
Nov. 2.....	19.02	1.60	1.06	.99
9.....	10.95	1.48	.61	.91
16.....	15.38	1.42	.56	.88
23.....	11.23	1.38	.62	.85
30.....	16.09	1.37	.59	.85
Dec. 7.....	20.73	1.38	1.15	.85
14.....	9.44	1.39	.53	.96

^aIncluding only persons of known ages.

Figure 2 presents the smoothed curves. It is suggested that there was a definite relation between the stage of the epidemic and its fatality, but no such conclusion is justified without considering two factors: (a) differences in age incidence as the epidemic progressed (which may have been responsible in part or in whole for the changes in case fatality); and (b) the stage of the epidemic in each locality.

With respect to the first point, (1) case fatality of epidemic influenza, as is now well known, varied according to age in a marked and characteristic manner, and (2) analyses of influenza case incidence in specific age groups at successive periods of the epidemic in the surveyed localities have shown that there was a gradual change in incidence in the different ages. Incidence in the age groups up to 15 years was relatively lower in the earlier stages of the epidemic than in the later stages. It is evident that, even if the fatality in the individual age groups remained constant as the epidemic progressed, the fatality rates for all ages would be affected to some extent by changes in the relative incidence of the cases in the different age groups. It was therefore thought advisable to adjust the case fatality rates to a standard age distribution of cases.⁷ The data are too meager to permit such adjustment for each week. The adjustment, therefore, has been made for groups of weeks, each period containing approximately one-fourth of the cases occurring in all localities during the epidemic. The actual and adjusted case fatality rates (all known ages) for these groups are compared in Table III.

⁷ What was desired was to determine what the fatality rates would be at successive periods, if there were assumed a constant distribution of cases in separate age groups at these periods. In other words, the case fatality rates were adjusted to a standard distribution, not of population, but of cases. For convenience, the percentage distribution of cases in each age group for the whole epidemic in all surveyed localities was used as the standard.

September 9, 1921.

TABLE III.—*Actual and adjusted (for age) case fatality of influenza for four periods of epidemic in all surveyed localities.¹*

Period ended—	Cases.	Deaths (by date of onset of case).	Fatality rate per 100 cases.	
			Actual.	Adjusted for age.
Oct. 5.....	8,042	165	2.05	2.00
Oct. 19.....	11,124	209	1.88	1.92
Nov. 30.....	11,457	182	1.58	1.57
Feb. 1.....	8,006	128	1.59	1.59

¹ It may be noted that the division of cases and deaths into what are practically quartile periods does not afford a true picture of the case fatality curve, as a reference to Tables I and II and Figures 1 and 2 will show.

While the specific morbidity rates were found to differ considerably in the four periods, these differences in case incidence did not

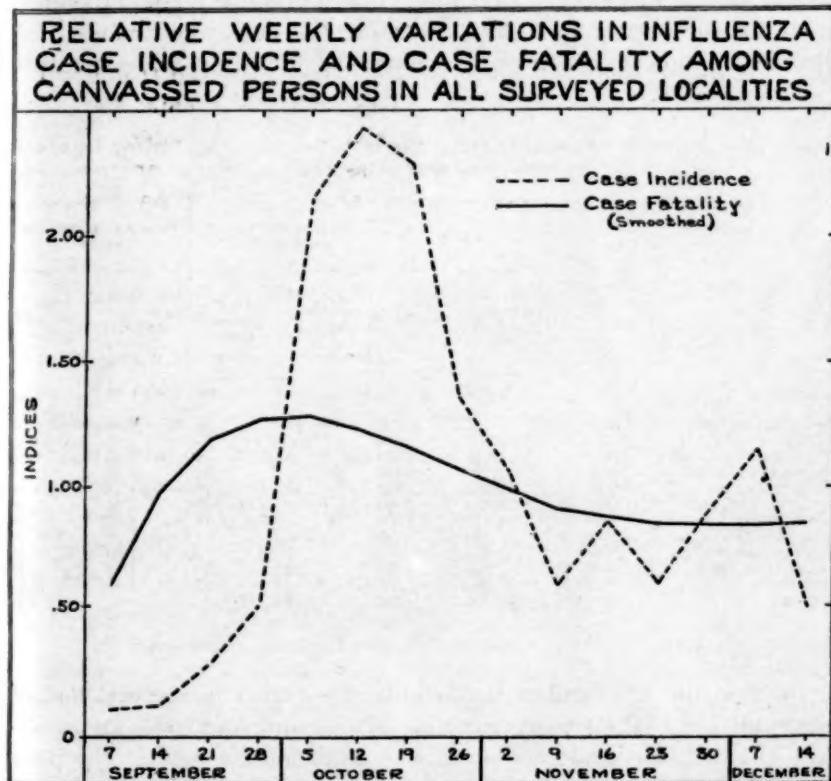


FIG. 2.

affect materially the case fatality rates. The differences shown by the adjustments are negligible, and for this reason the factor of age may be safely disregarded.*

* The same adjustment for Baltimore alone gave a similar result.

The other point requiring consideration is the stage of the epidemic in individual localities. The grouping of localities in Tables I and II did not take into account differences in the behavior of the epidemic from the point of view of *time*, and the epidemic curves differed widely in their general character. Most of the localities surveyed showed two somewhat clearly defined waves, but the relations which these waves bore to each other were quite dissimilar. In some cases the second peak occurred two or three weeks after the first; in others, months separated the two peaks. In some cases the incidence was greater in the first wave, in others in the second wave. A few of the localities had a single explosive wave. Furthermore, the crest of the epidemic was reached at different times in the various localities. In view of these facts, it seemed desirable to compare the case fatality and case incidence rates in the individual localities for different *periods* of the epidemic. In Table IV a preliminary comparison is made for the period up to and including the date when one-half of the cases had occurred in each locality and for the period after this "median" date.

TABLE IV.—*Influenza case fatality before and after "median" date among canvassed persons in all surveyed localities.*

Locality.	"Me- dian" date.	Cases.		Deaths (by date of onset of case).		Fatality rate per 100 cases.	
		Up to and including "median" date.	After "median" date.	Up to and including "median" date.	After "median" date.	Up to and including "median" date.	After "median" date.
All localities.....		21,299	21,025	419	298	1.97	1.42
New London, Conn.....	Sept. 30	713	725	22	22	3.09	3.03
Baltimore, Md.....	Oct. 10	4,066	4,115	108	63	2.66	1.53
Minor Maryland towns ¹	Oct. 8	2,380	2,669	49	35	2.06	1.31
Charles County, Md.....	Dec. 2	3,198	3,016	75	60	2.35	1.99
Little Rock, Ark.....	Oct. 10	1,782	1,734	21	18	1.18	1.04
San Francisco, Calif.....	Oct. 30	2,060	1,916	54	36	2.62	1.88
San Antonio, Tex.....	do.....	3,270	3,376	35	19	1.07	.56
Louisville, Ky.....	Nov. 1	945	843	16	9	1.69	1.07
Spartanburg, S. C.....	Nov. 5	560	559	7	3	1.25	.54
Des Moines, Iowa.....	Nov. 23	656	675	12	10	1.83	1.48
Macon, Ga.....	Nov. 15	945	720	13	12	1.38	1.65
Augusta, Ga.....	Dec. 16	724	671	7	11	.97	1.64

¹ Cumberland, Frederick, Salisbury, Lonaconing, Quantico, Linganore, and Dillsburg.

In 10 of the 12 localities the fatality was higher in the first half of the epidemic. The two exceptions—Macon and Augusta—are localities in which the epidemic curve was quite unique in that the peak did not occur until practically the end of the epidemic.

The small size of the canvassed populations makes it impossible to determine the rates in individual localities for more finely divided periods. To obtain weekly rates it has been necessary to combine the localities, having regard to the character of the epidemic curve in each. Those localities in which there was one sharply explosive

wave (New London, minor Maryland towns, and Little Rock) have been placed in one class, while other localities, in which there were two waves (more or less clearly defined), have been placed in another class.⁹ To allow for the difference in time at which the peaks occurred the peak weeks have been placed together. In the second group the peaks of the two waves have been considered separately, one half of the weeks intervening between the two peaks having been arbitrarily placed in the first wave and the other half in the second wave. As before, cases occurring previously have been eliminated from the population before calculating the case rates for each week.¹⁰

The case rates and the fatality rates for the successive weeks have been reduced to a comparable basis by dividing them by their respective arithmetic averages. The case fatality indices were smoothed by the method previously referred to, and the smoothed figures have been introduced into the tables which follow.

TABLE V.—*Influenza case incidence and case fatality, by weeks, during 1918 epidemic in canvassed populations of surveyed localities with a single explosive peak,^a the peak weeks having been placed together.*

Week.	Persons can-vassed.	Cases.	Deaths (by date of onset of case).	Case rate per 1,000 persons.	Fatality rate per 100 cases.	Indices.	
						Case inci-dence.	Case fatality (smoothed).
Weeks prior to peak week.	5.....	22,388	28	1	1.25	{	0.05
	4.....	22,360	52	0	2.33	.09	0.76
	3.....	30,240	148	2	4.89	.19	1.08
	2.....	30,092	374	6	12.43	.60	1.22
Peak week.....	1.....	29,718	1,963	45	66.05	2.29	2.52
	27,755	2,874	52	103.55	1.81	3.95	1.20
	1.....	24,881	1,801	21	72.38	1.17	2.76
	2.....	23,080	819	15	35.49	1.83	1.35
Weeks subsequent to peak week.....	3.....	22,261	519	10	23.31	1.93	.89
	4.....	21,742	246	2	11.31	.81	.43
	5.....	21,496	214	1	9.96	.47	.38
	6.....	21,282	174	4	8.18	2.30	.31
	7.....	21,108	187	3	8.86	1.60	.34
	8.....	20,921	146	1	6.98	.68	.27

^a New London, minor Maryland towns, Little Rock.

⁹ One locality (Macon) has been omitted entirely because of the fact that its curve does not strictly fall into either of the two classes mentioned.

¹⁰ It is obvious that at the beginning and end of each series of weeks certain localities will not be represented, and therefore the population of these localities has been deducted from the total before computing rates for those weeks.

TABLE VI.—*Influenza case incidence and case fatality by weeks during 1918 epidemic in canvassed populations of surveyed localities with two waves,¹ the peak weeks having been placed together.*

Week.	Persons can- vassed.	Cases.	Deaths (by date of onset of case).	Case rate per 1,000 persons.	Fatality rate per 100 cases.	Indices.	
						Case incidence.	Case fatality (smoothed).
Weeks prior to peak week.....	6.....	57,287	170	2	2.97	1.18	0.19
	5.....	90,460	252	2	2.79	.79	.18
	4.....	107,467	389	5	3.62	1.29	.23
	3.....	107,078	486	6	4.54	1.23	.29
	2.....	106,562	1,376	30	12.91	2.18	.82
	1.....	105,216	3,271	91	31.09	2.78	1.97
Peak week.....		101,945	4,488	101	44.02	2.25	2.79
Weeks subsequent to peak week.....	1.....	97,457	2,820	46	28.94	1.63	1.84
	2.....	94,637	1,872	25	19.78	1.34	1.26
	3.....	92,765	1,216	19	13.11	1.56	.83
	4.....	76,983	738	19	9.59	2.37	.61

SECOND WAVE.							
Weeks prior to peak week.....	4.....	72,063	600	9	8.45	1.48	0.62
	3.....	84,131	1,247	9	14.82	.72	1.09
	2.....	88,290	1,264	16	14.32	1.27	1.05
	1.....	87,028	1,530	24	17.58	1.57	1.29
Peak week.....		85,496	2,547	40	29.79	1.57	2.19
Weeks subsequent to peak week.....	1.....	82,949	1,350	27	16.28	2.00	1.20
	2.....	81,599	832	12	10.44	1.41	.77
	3.....	70,312	389	1	5.53	.25	.41
	4.....	34,548	174	4	5.04	2.30	.37

¹ Baltimore, Charles County, Md., San Francisco, San Antonio, Louisville, Spartanburg, Des Moines, and Augusta, Ga.

Figure 3 presents the smoothed indices for the one-peak and two-peak cities, respectively.

In forming a judgment as to the significance of the relations brought out in these statistics, it must be borne in mind that near the close of the epidemic, when the number of cases was relatively small, deaths from non-influenza pneumonia may have been sufficient to raise the case fatality to some extent.

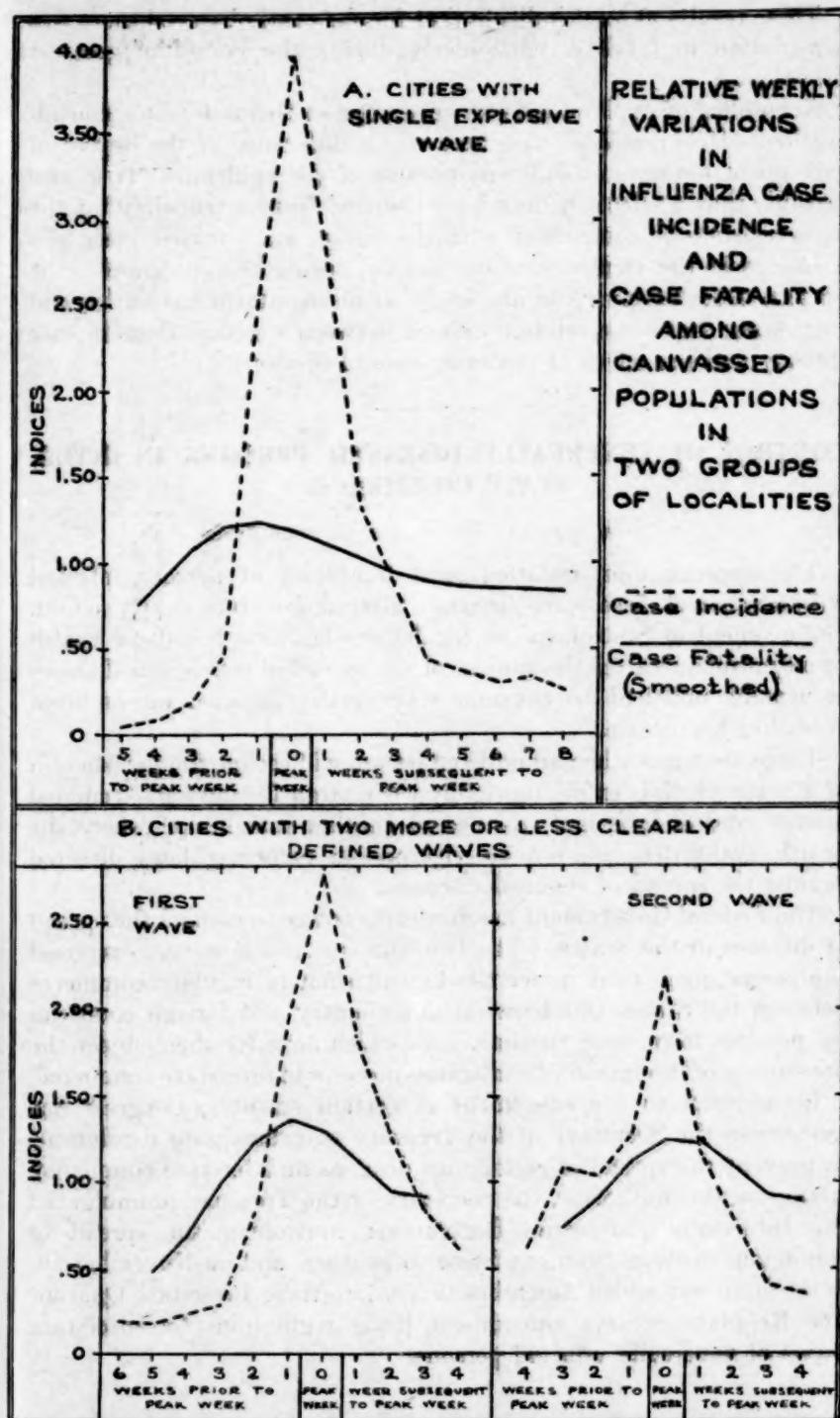
Allowing for certain irregularities that apparently are caused by small numbers, the curves presented in Figure 3 suggest that:

1. A distinct rise and fall in case fatality occurred during the course of the epidemic.

2. This change bore a fairly definite relation to the rise and fall in case incidence. The correspondence is especially clear in those cities in which two peaks occurred, and is shown in both waves.

3. Case fatality seemed to rise during the first part of each wave of the epidemic, tending to reach its highest point during the period in which the epidemic was spreading most rapidly, but showing a tendency to decline immediately before or coincident with the peak in incidence.

September 9, 1921.



These results at least indicate that for the cases observed there was a variation in fatality, particularly during the period of greatest prevalence.

A number of explanations at once suggest themselves for consideration. It is possible that there was a difference in the degree of care given patients at different periods of the epidemic. It is also possible that a selection may have resulted from a tendency for the least resistant to come down with the disease first, or that there was a change in the virulence of the disease during the epidemic. The present data, however, do not assist us in an interpretation beyond suggesting that some relation existed between the variations in case fatality and the curve of epidemic case incidence.

CONTROL OF VENEREALLY DISEASED PERSONS IN INTER-STATE COMMERCE.

By DAVID ROBINSON, United States Public Health Service.

The apprehension, isolation, and treatment of persons infected with a venereal disease are generally matters for State or city action. Enforcement of State laws, or regulations of State boards of health or city ordinances on the subject of the spread of contagious diseases is usually sufficient to prevent a venereally diseased person from spreading his disease.

There are times when an infected person will escape the jurisdiction of a State which is enforcing rigidly the quarantine laws and venereal disease control laws and will flee to another jurisdiction where the health authorities are not so vigorous in enforcing laws directed against the spread of venereal diseases.

The Federal Government has but little power to control the spread of diseases in the States. The Government has, however, exercised the power given to it under the Constitution to regulate commerce between the States and between this country and foreign countries by passing, from time to time, laws which have for their object the prevention of the spread of contagious diseases in interstate commerce.

In addition to the enactment of certain statutes, Congress has authorized the Secretary of the Treasury to promulgate regulations to prevent the spread of contagious diseases in interstate commerce. Acting on this authority, the Secretary of the Treasury promulgated the Interstate Quarantine Regulations controlling the spread of contagious diseases from one State to another, and on November 19, 1918, there was added Amendment No. 7 to these Interstate Quarantine Regulations, said amendment being regulations for interstate travel of venereally infected persons.

September 9, 1921.

It is not the object of Federal or State health officers to prevent the travel of venereally diseased men or women who go from one State to another in search of medical treatment. Persons seeking the attention of specialists in other States are given every encouragement to go. If adequate facilities and expert care are not available in the place of domicile of a venereally diseased person, he should be encouraged and assisted to go to places where this expert care and facilities for treatment are offered.

There are, however, venereally diseased men and women who are a menace in their home communities and in such other places as they may travel to. The procurer, the vagrant, the prostitute who is in an infectious state of syphilis or gonorrhea and who not only refuses or neglects to take treatment, but deliberately exposes others to infection, are of this class. When enforcement of laws against prostitution or venereal disease control laws render it impossible or exceedingly unprofitable for them to engage in spreading their disease in the State of their domicile, they journey to neighboring or distant jurisdictions and, until apprehended, create a burden of disease and suffering with all the sequelæ of syphilis and gonorrhea. They are, therefore, a menace, not only to their home State, but to the country at large. This is a menace which is cognizable by the Federal Government and punishable in the Federal courts.

In combating the spread of venereal diseases it is necessary that every avenue through which these diseases are spread should be closed if possible. Every discouragement which can be placed upon persons who make a business of spreading these diseases should be invoked. If State laws or city ordinances are insufficient to accomplish this purpose and Federal laws can be invoked which will aid materially in this problem, utilization should be made thereof.

Prostitutes and those who associate with them who are venereally diseased must be taught that serious punishment awaits them if they infect others with these diseases. If it should become general knowledge among this class, that travel from one State to another while they are venereally diseased will lead to apprehension, speedy trial, and severe punishment, an added inducement for voluntary treatment will be afforded. This will be an additional measure to accomplish the much desired end that every venereally diseased person place himself under the care of a skilled physician of his own selection for treatment.

Some of the States which have adequate follow-up systems have notified other States directly or through the Public Health Service when an infected person ceased treatment without permission of the attending physician and went into another State. In most of these instances no difficulty was experienced in inducing the person to resume treatment.

It is thought, however, that a large number of persons who are in an infectious state of venereal disease never receive proper treatment either in the State of their domicile or in States to which they travel. Again, there are many communities which do not have adequate detention hospital facilities for the isolation of such persons as are a menace to the community and who can not be trusted to remain under treatment and refrain from exposing others to infection while they are receiving treatment. If any of this class are convicted of violating the Interstate Quarantine Regulations, they will be detained and treated at the expense of the United States Government.

Frequently inquiries are received from city and State health officers asking for information as to the procedure of invoking the amendment to the Interstate Quarantine Regulations governing the travel of venereally diseased persons. On account of certain difficulties experienced heretofore in securing prompt cooperation from some Federal law-enforcing officials, due to the lack of familiarity with this regulation and the law under authority of which it was promulgated, it is thought desirable to set forth this procedure in detail. It may happen that the United States attorney to whom request is made for institution of proceedings is not familiar with the law, under authority of which the regulations are promulgated. To insure prompt action, the health officer requesting assistance should be able to advise the United States attorney when necessary of the necessary citations to code, regulations, and court decisions.

The Interstate Quarantine Regulations are promulgated by the Secretary of the Treasury, under authority of the act of Congress approved February 15, 1893 (27 Stat., ch. 114, p. 449). When this act was passed by Congress, no penalty was provided for the violation thereof, or for the violation of any regulations promulgated under the authority thereof. This defect was remedied when the act was amended by the act of March 3, 1901 (31 Stat., ch. 836, p. 1086). Section 10 of the act as amended reads:

"* * * Any person violating * * * any rule or regulation made in accordance with this act * * * relating to the prevention of the introduction of contagious or infectious diseases * * * shall be deemed guilty of a misdemeanor."

Opposition to enforcement of this regulation may be anticipated from the same class of people who resist enforcement of venereal disease control regulations in the States and who desire to engage in prostitution unhampered by these restrictive measures. It may be urged by attorneys for these people that the regulations are insufficient or defective, or that insufficient authority exists for their promulgation. The argument might also be made that Congress has no power to delegate legislative authority. These objections are without merit. The act of the Secretary of the Treasury in establishing

September 9, 1921.

rules and regulations is an administrative act properly authorized by Congress in the act of February 15, 1893. The penalty is provided by Congress and not by the Secretary for the violation of the act or any regulations established under the authority of the act. This principle of law has been passed upon and upheld by the Federal courts in many decisions.

The following can be considered leading cases interpreting this principle of law.

"The courts of the United States take judicial notice of rules and regulations prescribed by the Department of the Interior in respect of contests before the land office.

"Wherever by the express language of any act of Congress power is intrusted to either of the principal departments of Government to prescribe rules and regulations for the transaction of business in which the public is interested, and in respect to which they have a right to participate, and by which they are to be controlled, the rules and regulations prescribed in pursuance of such authority become a mass of that body of public records of which the courts take judicial notice." (*Caha v. U. S.*, 152 U. S. 211.)

"Regulations prescribed by the President and by the heads of departments, under authority granted by Congress, may be regulations prescribed by law, so as to lawfully support acts done under them and in accordance with them, and may thus have, in a proper sense, the force of law." (*U. S. v. Eaton*, 144 U. S. 677.)

"While it is difficult to define the line which separates legislative power to make laws and administrative authority to make regulations, Congress may delegate power to fill up details where it has indicated its will in the statute, and it may make violations of such regulations punishable as indicated in the statute." (*U. S. v. Grimaud*, 220 U. S. 506. *See also U. S. v. Bailey*, 9 Pet. 238; *Cosmos Company v. Gray Eagle Co.*, 190 U. S. 309; *Oceanic Navigation Co. v. Stranahan*, 214 U. S. 333; *Roughton v. Knight*, 219 U. S. 537; *Smith v. Whitney*, 116 U. S. 167; *Ex parte Reed*, 100 U. S. 22; *Gratiot v. U. S.*, 4 Howard 81.)

"Regulations made by an executive department in pursuance of authority delegated by Congress have the force of law, and the courts will take judicial notice of their existence and provisions; hence an indictment charging a violation of such a regulation which is made an offense by statute need not set out such regulation, but is sufficient if it avers that an act done in pursuance of such regulation was done under the requirements of law." (*Wilkins v. U. S.*, 96 Fed. 837.)

This, in effect, and for the purposes discussed in this article, gives the regulations the same dignity as a Federal statute on this subject would be entitled to.

Recently the Public Health Service requested the Attorney General of the United States to notify United States attorneys in the various jurisdictions of the amendment to the Interstate Quarantine Regulations discussed herein. On April 18, 1921, the Attorney General sent a letter to all United States attorneys advising them of the

law and the regulations on this subject, transmitted a copy of the amendment governing the interstate travel of venereally infected persons, and concluded the letter with the following paragraph:

"The Public Health Service, cooperating with State boards of health, is striving to reduce the spread of venereal diseases. You are requested to give your full cooperation by prosecuting vigorously proper cases presented to you for action."

This splendid cooperation is very encouraging and should be taken advantage of by State and local health officers when the occasion warrants.

The regulations governing the interstate travel of venereally infected persons do not absolutely prohibit such travel. Such a person is permitted to go from one State to another providing he complies with the regulations by first securing a permit from the local health officer under whose jurisdiction he resides. This permit must state that in the opinion of the health officer such travel is not dangerous to the public health. He must inform the local health officer of the place where he intends to reside and must agree in writing to report in person to the proper health officer within one week after arrival at his new residence.

It is the duty of the health officer who issued the release to promptly notify the health officer under whose jurisdiction the infected person is to enter, of its issue. The receiving health officer shall, in turn, report the arrival of the infected person to the health officer who issued his release and notify the State health officer of his State that a person infected with venereal disease has come into the State. The infected person must agree to continue treatment under the direction of a reputable physician until the health officer shall have certified that he is no longer infectious.

When it comes to the knowledge of a health officer that a person in an infectious stage of venereal disease and who is liable to be a menace has left the State of his domicile or has entered the jurisdiction of such health officer from another State without first securing a release, as provided in the regulations, the health officer should present such facts to the United States attorney in either jurisdiction, who will advise the proper procedure in regard to all details of apprehension and trial of the accused person.

Prosecutions of persons who violated the amendment to the Interstate Quarantine Regulations, dealing with the travel of venereally infected persons, were instituted this year in Fort Smith, Ark. Eight persons were convicted of coming into the State of Arkansas from the State of Oklahoma without complying with these regulations and were sentenced to six months imprisonment in a reformatory situated in the State of Iowa. Not only is the public protected from the disease-spreading activities of these defendants, but they are now

September 9, 1921.

receiving proper medical care at the expense of the United States Government.

In giving authority for the promulgation of regulations governing interstate travel of persons infected with contagious diseases, Congress made it possible for these regulations to be enforced by State or municipal health officers. If the State or municipal health officer should fail or refuse to enforce these regulations, the law declares that the President should enforce them.

In the act creating the Division of Venereal Diseases of the Public Health Service, Congress specified as one of the duties of the division 'to control and prevent the spread of venereal diseases in interstate traffic.' While it is possible from time to time for officers of the Division of Venereal Diseases to assist the States in preventing the interstate travel of venereally infected persons who are a menace, it is not intended or contemplated that either the Public Health Service or the State boards of health should police the boundary lines of all States. The provisions of State laws requiring that physicians should report names and addresses and other facts relating to venereally infected patients who refuse to continue treatment or who conduct themselves in a manner conducive to the spread of their infection, have been used effectively by many conscientious physicians who heretofore have been helpless when their patients ceased treatment with harmful results to such patients and danger to the community.

Many physicians have been successful in inducing patients to remain under treatment by calling attention to the provisions of these laws. It would be well if all physicians as well as local health officers would be apprised of the Federal Interstate Quarantine Regulations. Conscientious physicians could, by reference to these regulations, deter many persons who seek to escape the public health laws of their own State by traveling to a State where these laws are not so comprehensive, or where they are not as rigidly observed.

CARBON MONOXIDE POISONING IN CLOSED GARAGES.

The occurrence of fatalities as the result of carbon monoxide poisoning from the exhaust gas of automobile engines running in small, closed garages is a frequent item of news during the winter season; and the public, particularly automobile owners and garage workers, should be warned of the danger involved in running a gasoline engine in a small closed space, and advised to see that the garage is well ventilated by open doors or windows before permitting an engine to run for any considerable period of time. The principal toxic substance in the exhaust gas of gasoline engines is carbon

monoxide, which quickly overcomes persons exposed to it above certain concentrations.

Some interesting experiments on this subject have recently been carried on in connection with a preliminary study of the problem of ventilation involved in the proposed vehicular tunnel under the Hudson River.¹ These experiments were made in especially prepared gassing chambers and relate principally to (1) the length of time it is safe to be exposed to various concentrations of carbon monoxide; (2) the comparative toxicity of pure carbon monoxide, illuminating gas, exhaust gas from gasoline and coal distillate, and (3) the amount of carbon monoxide given off in the exhaust of automobile engines. Human beings, horses, and dogs were used as experimental subjects.

As regards the rate of absorption of carbon monoxide into the blood, the authors state as follows:

"The body of an adult man of average weight contains enough hemoglobin to hold about 600 c. c. of oxygen. If completely saturated, it would hold the same amount of carbon monoxide, one molecule of carbon monoxide replacing one molecule of oxygen in the blood. The absorption of 6 c. c. of carbon monoxide from the lungs produces, then, 1 per cent of saturation and abolishes 1 per cent of the oxygen capacity.

"The unit in which various concentrations of carbon monoxide are commonly measured and expressed for purposes of ventilation is one 'part,' or a certain number of 'parts,' of this gas mixed with 10,000 times as much air. A part is a hundredth of 1 per cent of an atmosphere. A man at rest breathes about 8,000 c. c. of air per minute, of which about 6,000 c. c. reach his lungs, or 60 liters in 10 minutes. Let us suppose that this air contains one part of carbon monoxide, or 6 c. c. in 60 liters, and that all of this 6 c. c. is absorbed. The blood would then become saturated at the rate of 1 per cent every 10 minutes per 'part' of carbon monoxide in the air. Evidently the duration of exposure is a limiting factor in the amount absorbed, for one can not absorb more than one inhales.

"It appears that when a man begins breathing any low concentration of carbon monoxide mixed with air, absorption at very nearly this rate does occur, but only at first. Then the rate becomes slower. Even if the exposure is prolonged, carbon monoxide merely displaces oxygen from the blood up to a point of equilibrium depending upon the relative amounts or mass actions, of carbon monoxide and oxygen in the air breathed and the intensity of the affinities of the two gases for hemoglobin. If thereafter the pressure of oxygen is high enough and that of the carbon monoxide is low, or absent as in pure air,

¹ Physiological Effects of Automobile Exhaust Gas and Standards of Ventilation for Brief Exposures. Yandell Henderson, Howard W. Haggard, Merwyn C. Teague, Alexander L. Prince, and Ruth M. Wunderlich. Jour. Ind. Hyg., July, 1921, pp. 79-92, and August, 1921, pp. 137-146.

September 9, 1921.

oxygen can likewise displace carbon monoxide and thus completely restore the oxygen-carrying power of the hemoglobin. The blood is neither directly changed nor injured by the process.

"Hemoglobin attracts carbon monoxide about 300 times as strongly as it does oxygen. Thus, if T_{O_2} and T_{CO} are the pressures of oxygen and carbon monoxide, and Hbo_2 and $Hbco$ the amounts of oxyhemoglobin and carbon monoxide hemoglobin in the blood, the relations are expressed by the formula:

$$\frac{T_{O_2}}{T_{CO} \times 300} = \frac{Hbo_2}{Hbco}, \text{ or}$$

$$\text{percentage Hbco} = \frac{T_{CO} \times 300}{T_{O_2} + (T_{CO} \times 300)};$$

or, more specifically, if there are 1,500 parts of oxygen and 2 of carbon monoxide, the formula works out to:

$$\frac{2 \times 300}{1500 + (2 \times 300)} = 28.5 \text{ per cent}$$

saturation with carbon monoxide.

"The air in the lungs contains about 1,500 parts of oxygen in 10,000. (It is actually somewhat less than 15 per cent of oxygen. The affinity of hemoglobin for carbon monoxide may also be less, or more, than 300. We are here using round numbers merely to illustrate the principle without attempting mathematical precision.) We may calculate the blood equilibrium for any concentration of carbon monoxide in the air, and from such data we may obtain the carbon monoxide dissociation curve of the blood. This curve indicates that, if the air containing two parts of carbon monoxide in 10,000 is breathed for a time long enough to attain equilibrium, the blood should become about 28 per cent saturated; with four parts, 44 per cent; with six parts, 54 per cent; and so on. In the curve it is to be seen that, for instance, the equilibrium value for 10 parts of carbon monoxide in 10,000 of air is 66.6 per cent saturation, which is a sufficient degree of saturation to render a man unconscious and totally helpless. If continued, the asphyxia might lead to serious permanent injury or even death.

"The question of greatest practical importance is: How long a time would be required to attain this on any other definite percentage of saturation? In other words, what is the physiological law defining the rate of absorption of carbon monoxide into the blood? From the simple calculation, given previously, regarding the oxygen capacity of the body and the volume of air drawn into the lungs, it appears that a man breathing 10 parts of carbon monoxide would inhale enough of the gas to become 66.6 per cent saturated in 66.6 minutes. But, as already indicated, the more carbon monoxide the blood contains the greater becomes the force with which this gas

tends to diffuse out again into the air. The more nearly this tendency equals and counterbalances the pressure of gaseous carbon monoxide in the lungs the slower the absorption of more carbon monoxide becomes. Thus, to attain a condition of complete blood equilibrium many hours would be actually required; indeed, the time is indeterminate. Doubtless other factors also play a part in retarding and stopping absorption.

"It appears to us, however, that *a definite quantity for determination would be the time required for attainment of a percentage saturation of one-half the equilibrium values.* Thus, in an atmosphere containing two parts of carbon monoxide, for which the blood equilibrium is about 28 per cent, how long a time would be required for the blood to become 14 per cent saturated? How long with four parts and an equilibrium value of 44 to attain 22 per cent saturation; or with six parts and an equilibrium of 54, to reach 27 per cent? The answer to this question is the principal practical contribution to knowledge which we have to make—namely, that *the time for attainment of half equilibrium for persons sitting at rest and breathing concentrations of carbon monoxide up to seven parts is never considerably less than one hour.* This fact is, we believe, of fundamental importance for ventilation engineering."

The following are the principal conclusions reached by the experimenters:

"When the time [of exposure] in hours multiplied by the concentration of carbon monoxide in parts per 10,000 of air equals 3, there is no perceptible physiological effect; when it equals 6, there is a just perceptible effect; when it equals 9, headache and nausea are induced; when it equals 15 or more, the conditions are dangerous to life.¹

"If the volume of breathing is increased by exercise (even by slow walking and correspondingly more physical work), the rate of absorption of carbon monoxide is increased proportionately.

"After return to fresh air, the elimination of carbon monoxide through the lungs proceeds at a rate of from 30 to 60 per cent reduction of the blood saturation per hour.

"In the exhaust gas from gasoline, carbon monoxide is the only considerable toxic constituent. In the exhaust gas from coal distillate (benzol, etc.) and illuminating gas there are present accessory toxic substances."

In testing the exhaust of an automobile engine for the total amount of gas discharged per minute and the percentage of carbon monoxide it contained, a special building was erected with a cubic capacity approximately that of a section of the proposed vehicular tunnel

¹ EDITORIAL NOTE.—This statement is obviously restricted to certain limits as regards both time of exposure and concentration of CO. For example, exposure for a number of years to relatively pure air containing a trace of CO would give factors the product of which would indicate dangerous conditions according to the above formula.

September 9, 1921.

which would contain one car under active traffic conditions. A small automobile, rated at 23 horsepower, was used. The power was employed in part to turn large paddle wheels which mixed the air in the chamber. Practically uniform concentrations of exhaust gas were found simultaneously in all parts of the chamber. It was found that the engine discharged a total of approximately 25 cubic feet of exhaust gas per minute; and samples of the exhaust gas unmixed with air gave from 5.5 to 6.8 per cent of carbon monoxide, an average of about 6 per cent, from which it appeared that approximately 1.5 cubic feet of carbon monoxide were produced by the car per minute.

If, then, a car while "warming up" should give off 1 cubic foot of carbon monoxide per minute in a closed room 10 by 10 by 20 feet, the atmosphere would reach the dangerous concentration of 15 parts in 10,000 in three minutes.

REPORT OF A HUMAN PLAGUE CASE IN SAN BENITO COUNTY, CALIF.

By W. T. HARRISON, Passed Assistant Surgeon, United States Public Health Service.

The patient in the case here reported (R. S.) was a white schoolboy eight years of age, residing in the Bitterwater Valley, San Benito County, Calif. He became sick on the afternoon of June 8, 1921, and came home from school with fever, headache, malaise, and vomiting. There were severe pain and swelling in the right axillary region. He was taken to Hollister on June 10, at 2.30 p. m., and was seen by Dr. O'Bannon, who made a provisional diagnosis of plague.

On June 11, at 5 a. m., his temperature was 104.5° F. There were swelling and induration of entire right shoulder, great tenderness, mild delirium, and great prostration. On the lower border of the right scapula were two spots slightly inflamed which appeared to be insect bites. One drop of serum was withdrawn from edematous shoulder and inoculated on agar slants. At 1 p. m. on June 11, 90 c. c. of Pasteur plague serum was administered, 10 c. c. intravenously and 80 c. c. subcutaneously; on June 12, at 2 a. m., 60 c. c., subcutaneously; at 8 a. m., 40 c. c.; and on June 13, at 8 p. m., 40 c. c.

On the morning of June 15 the temperature was normal and the induration of the shoulder was rapidly subsiding.

On June 17 there was a severe serum rash, which continued for three days, with an elevation of temperature to 104° F. The temperature subsided June 20, and the induration of the shoulder disappeared.

Cultures from the serum withdrawn on June 11 were entirely negative. On June 14, after considerable induration had disappeared, additional cultures were made from an enlarged lymphatic gland, which

by this time could be distinctly felt. After 48 hours' growth, these tubes were inoculated intraperitoneally into two guinea pigs. Both pigs were dead within 48 hours. The peritoneum was intensely injected and covered with a sticky exudate. Bipolar organisms were present in enormous numbers. Plate cultures from this exudate yielded an organism showing the following characteristics: Minute colorless colonies on agar in 24 hours, becoming slightly grayish in 48 to 72 hours; very slight turbidity in broth; no stalactites were observed; involutinal forms on 2.5 per cent salt agar; very slightly on acid in glucose broth.

Inoculation of additional guinea pigs by vaccination and pocket yielded typical gross lesions of plague from which the organism was recovered in pure culture.

SUMMARY.

This case of human plague originated in an old squirrel plague-focus in the Bitterwater Valley, San Benito County. The patient was seen and large doses of serum were administered 68 hours after onset, which probably explains the fairly rapid recovery. Credit for the fortunate outcome is due Dr. O'Bannon, of Hollister, for his prompt diagnosis, and Fred I. Lackenbach, of San Francisco, for keeping in stock a potent plague serum for which there is very little demand.

PROMPT MOSQUITO CONTROL BY USE OF THE TOP MINNOW, GAMBUSIA.

Ichthyologist Samuel F. Hildebrand recently made the following report on the prompt control of mosquito production by employment of *Gambusia* in large numbers:

Unusually heavy rains were experienced around Augusta, Georgia, early in July. As a result, many temporary ponds were formed. A pond, covering about one-fourth acre of ground, was observed on July 18 to contain mosquito larvæ in countless numbers. Culicine larvæ predominated, but many anopheline larvæ were also found. The mosquito larvæ were uniformly distributed over the pond. Previous to the July rains this depression was completely dry, but it gave evidence of having been under water for a considerable period of time since aquatic plants, cat-tails, and arrowheads were well established. Smart-weed, Bermuda grass, and foxtail occurred along the edges of the water. On July 19, approximately 2,000 *Gambusia* were introduced. On the evening of July 20 no wiggletails were visible in open water, but they were exceedingly numerous in the vegetation where they had gone for protection. On and after July 26 only an occasional small wiggletail could be found.

September 9, 1921.

As the fish were obtained from an abundantly stocked pond only about 300 yards distant, they were transferred about 500 at a time in a wooden tub, the work requiring less than half a day's time of one laborer. The cost in this instance for complete, prompt and continuous control of mosquito production was not more than \$1.

PREVALENCE OF POLIOMYELITIS.

The following table gives the number of cases of poliomyelitis (infantile paralysis) reported to the Public Health Service by State health officers from May 29 to September 3, 1921, inclusive. These reports are preliminary and necessarily incomplete.

Poliomyelitis (infantile paralysis)—Number of cases of poliomyelitis occurring in various States, as reported to the Public Health Service by the State health officers in weekly telegraphic or mail reports.

[States omitted are those from which no reports have been received or which have reported no poliomyelitis during the period covered. Leaders indicate that reports were received, but no cases of poliomyelitis were reported.]

State.	Week ended (1921)—												Sep-tem-ber—	
	June—			July—				August—						
	11	18	25	2	9	16	23	30	6	13	20	27		
Arkansas.....			1							7	7		2	
California.....	1	2	5		3	3	6	10	4	9	4	6	9	
Colorado ¹									1		2	1	1	
Connecticut.....		6	2	3	2	4	5		1	4	5	6	8	
District of Columbia.....				3	4	3	7		3	2	2			
Florida.....									1					
Georgia.....	1	1	1									1		
Illinois.....	2	4	5	10	12	15	24	39	38	27	28	25	16	
Indiana.....	2	1	1	1	1	6	8	5	2	3	2	7		
Iowa.....				1	1	3	1	1	7	6	16	14	8	
Kansas.....	1			2	2		1		1	3	3	3	6	
Kentucky.....	1			1	2	2	1			1				
Louisiana.....								2						
Maine.....	3					1		1		1	3	1		
Maryland.....	1	2	3	4	1	4	8	7	6	10	16	10	10	
Massachusetts.....	2		1	4	3	6	4	10	10	12	18	16	11	
Minnesota.....	1	1	2	10	1	3	5	101	81	48	62	50	48	
Mississippi.....	1										1			
Missouri.....	(2)	6		(2)	8	3	4		5	3	2	2	5	
Montana.....										2			1	
Nebraska.....	1			3		1	2	2		4	5	2		
New Jersey.....	2	1	1	2	(2)	3	1	6	7	6	8	4	12	
New York ²			1		2	4	10	15	24	27	41	34	40	
North Carolina.....	3			4	3	1			1	2	2	2	2	
Ohio.....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	27	(2)	(2)	(2)	(2)	(2)	
South Dakota.....					3				2		1	1		
Texas.....								3						
Vermont.....					3	1	3	3	2		4		2	
Virginia.....	(2)	(2)	1		(2)	2	1	2	(2)	(2)	1	(2)		
Washington.....											13	39	22	
West Virginia.....									2	3		3	1	
Wisconsin.....				1	4	9	14	12	21	16	15	14	17	

¹ Exclusive of Denver.² No report received.³ Exclusive of New York City.

SEMIANNUAL MEETING OF THE AMERICAN CONFERENCE ON HOSPITAL SERVICE.

The semiannual meeting of the American Conference on Hospital Service will be held September 12-16, 1921, at West Baden, Ind., in conjunction with the meeting of the American Hospital Association.

The American Conference on Hospital Service, an association organized "for the betterment of hospital service in the United States and Canada," is composed of the following 15 national hospital and health organizations:

- American Association of Industrial Physicians and Surgeons.
- American Association of Hospital Social Workers.
- American Dietetic Association.
- American Hospital Association.
- American Medical Association.
- American Nurses Association.
- Association of American Medical Colleges.
- Catholic Hospital Association of the United States and Canada.
- Federation of State Medical Boards of the United States.
- Medical Department of the United States Army.
- Bureau of Medicine, United States Navy.
- National League of Nursing Education.
- National Tuberculosis Association, Inc.
- National Organization for Public Health Nursing.
- United States Public Health Service.

The following program has been prepared for Thursday, September 15, 1921:

10 a. m.: Opening Session, Assembly Hall.

Opening remarks. By Frank Billings, M. D., president.

Report of the Hospital Library and Service Bureau. By Donelda R. Hamlin, director, Chicago, Ill.

Report of the Treasurer. By Harry E. Mock, M. D., treasurer, Chicago, Ill.

Report of the Trustees. By A. R. Warner, M. D., acting secretary, Chicago, Ill.

Report of the special committee to work out the procedure in the determination of policies as to hospital service.

2 p. m.: Joint General Session, Convention Hall.

Frank Billings, M. D., president of the Conference, presiding.

American Conference on Hospital Service.

American Hospital Association.

Address by John G. Bowman, chancellor of the University of Pittsburgh, Pittsburgh, Pa.

Discussion.

A Method of Increasing Medical Efficiency Within the Hospital.—Frank R. Nuzum, medical director, Santa Barbara College Hospital, Santa Barbara, Calif.

Discussion.

September 9, 1921.

HOSPITAL LIBRARY AND SERVICE BUREAU EXHIBIT.

Realizing the important service which is being rendered by the Hospital Library and Service Bureau, whose headquarters are at 22 East Ontario Street, Chicago, the American Hospital Association has invited the Library to have an exhibit at the convention. The Association has contributed sufficient space to permit of a very comprehensive exhibit.

Since the subject of hospital construction is one upon which the Library has received a great many inquiries, a large portion of the exhibit will be made up of floor plans of hospitals, sanatoriums, health centers, dispensaries, nurses' homes, and allied institutions. Plans of over 300 institutions will be shown. In connection with the plans, it is expected that the list of architects specializing in hospital construction will be freely used. This list, giving, as it does, the institution designed by the various architects, enables the user to form a fairly accurate opinion of the type of work being done by individual architects.

Complete subjects, author, title, and analytical indexes are being prepared of the various hospital journals. Such parts of these indexes as are complete will be included in the exhibit, together with copies of the journals indexed. Complete sets of record forms used in hospitals of various types and sizes will also be shown, together with books on the classification of diseases. A limited number of books, journals, reprints, and pamphlets on the various phases of hospital construction, equipment, and administration will also be shown.

The material being assembled by the Hospital Library and Service Bureau is so varied in type and so extensive that only a very small portion of it can be included in the exhibit. The object in having such an exhibit is rather to bring the hospitals in contact with the service being rendered and to acquaint them more fully with the purpose and scope of the Hospital Library and Service Bureau and the manner in which it functions.

DEATHS DURING WEEK ENDED AUG. 27, 1921.

Summary of information received by telegraph from industrial insurance companies for week ended Aug. 27, 1921, and corresponding week, 1920. (From the Weekly Health Index, Aug. 30, 1921, issued by the Bureau of the Census, Department of Commerce.)

	Week ended Aug. 27, 1921.	Corresponding week, 1920.
Policies in force.....	47,478,259	43,890,895
Number of death claims.....	7,145	6,847
Death claims per 1,000 policies in force.....	7.8	8.1

Deaths from all causes in certain large cities of the United States during the week ended Aug. 27, 1921, infant mortality, annual death rate, and comparison with corresponding week of preceding years. (From the Weekly Health Index, Aug. 30, 1921, issued by the Bureau of the Census, Department of Commerce.)

City.	Estimated population, July 1, 1921.	Week ended Aug. 27, 1921.		Average annual death rate per 1,000. ²	Deaths under 1 year.		Infant mortality rate, week ended Aug. 27, 1921. ³
		Total deaths.	Death rate. ¹		Week ended Aug. 27, 1921.	Previous year or years. ²	
Akron, Ohio.....	229,195	29	6.6	+ 8.8	10	* 4	96
Albany, N. Y.....	115,071	32	14.5	C 13.3	3	C 3	67
Atlanta, Ga.....	207,473	58	14.6	C 14.9	9	C 7	—
Baltimore, Md.....	732,963	158	10.9	A 17.0	26	A 51	73
Birmingham, Ala.....	186,133	45	22.6	A 19.8	11	A 9	—
Boston, Mass.....	757,634	174	12.0	A 14.6	38	A 46	103
Bridgeport, Conn.....	149,967	30	10.4	A 14.7	4	A 12	50
Buffalo, N. Y.....	519,608	100	10.0	C 11.1	24	C 27	93
Cambridge, Mass.....	110,444	18	8.5	A 12.6	4	A 9	72
Camden, N. J.....	119,672	27	11.8	—	10	—	149
Chicago, Ill.....	2,780,655	510	9.6	A 13.4	94	A 164	—
Cincinnati, Ohio.....	403,418	108	14.0	C 11.0	11	C 9	73
Cleveland, Ohio.....	831,138	149	9.3	C 9.6	23	C 21	62
Columbus, Ohio.....	245,358	54	11.5	C 9.8	8	C 5	93
Dallas, Tex.....	165,282	34	10.7	A 11.2	8	A 4	—
Dayton, Ohio.....	158,119	35	11.5	C 7.1	9	C 3	148
Denver, Colo.....	261,152	63	12.5	A 11.7	11	—	—
Detroit, Mich.....	1,070,450	193	9.4	C 10.5	49	C 39	93
Fall River, Mass.....	120,668	30	13.0	C 10.4	8	C 11	126
Grand Rapids, Mich.....	141,197	27	10.0	C 8.6	4	C 3	68
Houston, Tex.....	144,340	41	14.8	—	10	—	—
Indianapolis, Ind.....	325,215	69	11.1	C 10.3	11	C 15	85
Jersey City, N. J.....	362,788	64	11.0	C 11.9	9	C 14	62
Kansas City, Kans.....	103,884	26	13.1	C 14.8	3	C 7	72
Kansas City, Mo.....	326,157	78	12.1	C 11.9	17	C 12	—
Los Angeles, Calif.....	611,921	157	13.4	A 11.4	16	A 10	76
Louisville, Ky.....	226,083	48	10.6	C 13.7	1	C 4	12
Lowell, Mass.....	113,757	22	10.1	A 16.6	2	A 13	32
Memphis, Tenn.....	165,389	57	18.0	C 13.4	9	C 6	—
Milwaukee, Wis.....	468,386	76	8.5	A 10.1	14	A 24	68
Minneapolis, Minn.....	392,815	66	8.8	C 7.0	11	C 7	63
Nashville, Tenn.....	122,036	49	20.9	C 20.6	7	C 4	—
New Bedford, Mass.....	125,612	24	10.0	A 14.7	7	A 13	108
New Haven, Conn.....	167,007	26	8.1	C 8.9	0	C 3	0
New Orleans, La.....	394,657	153	19.8	A 17.4	16	A 15	—
New York, N. Y.....	5,751,867	1,056	9.6	C 10.0	199	C 237	78
Newark, N. J.....	424,885	71	8.7	C 10.5	19	C 27	84
Norfolk, Va.....	121,260	31	13.3	—	4	—	—
Oakland, Calif.....	226,472	53	12.2	A 10.1	3	A 4	38
Omaha, Nebr.....	197,086	47	12.4	—	4	—	45
Paterson, N. J.....	137,463	44	15.7	—	11	—	186
Philadelphia, Pa.....	1,886,212	411	11.5	+ 14.9	76	* 119	92
Pittsburgh, Pa.....	662,432	114	9.9	C 11.6	25	C 25	89
Portland, Oreg.....	254,859	38	7.5	C 8.2	3	C 2	30
Providence, R. I.....	229,645	59	12.8	C 10.5	10	C 10	91
Richmond, Va.....	175,686	36	10.7	C 14.8	7	C 11	85
Rochester, N. Y.....	305,229	75	12.8	C 7.9	19	C 8	148
St. Louis, Mo.....	786,164	173	11.5	C 9.2	20	C 10	—
St. Paul, Minn.....	237,781	43	9.4	C 10.2	6	C 4	60
Salt Lake City, Utah.....	123,505	24	10.3	A 10.3	3	—	46
San Francisco, Calif.....	520,546	110	11.0	C 10.7	5	C 8	29
Seattle, Wash.....	327,227	42	6.7	A 8.0	3	A 6	25
Springfield, Mass.....	135,877	21	8.1	C 12.7	2	C 8	30
Syracuse, N. Y.....	177,265	33	9.7	C 15.3	5	C 20	60
Toledo, Ohio.....	233,690	50	10.3	A 15.3	11	A 16	111
Trenton, N. J.....	122,760	26	11.0	A 20.6	5	A 10	76
Washington, D. C.....	454,026	101	11.5	A 13.4	8	A 16	47
Wilmington, Del.....	113,408	34	15.6	C 14.5	9	—	—
Worcester, Mass.....	184,972	35	9.9	C 11.5	3	C 4	32
Yonkers, N. Y.....	103,324	15	7.6	A 12.1	3	A 5	68

¹ Annual rate per 1,000 population.

² "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates date for the corresponding week of the year 1920.

³ Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1920. Cities left blank are not in the registration area for births.

* Data based on statistics of 1915, 1916, and 1917.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended Sept. 3, 1921.

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		Cases.	COLORADO.	
			(Exclusive of Denver.)	
		Cases.		
Cerebrospinal meningitis.....		1	Cerebrospinal meningitis.....	1
Diphtheria.....	55		Chicken pox.....	1
Hookworm disease.....	8		Diphtheria:	
Malaria.....	18		Pueblo.....	42
Scarlet fever.....	31		Scattering.....	10
Smallpox.....	5		Influenza.....	1
Tetanus.....	1		Measles.....	1
Tuberculosis.....	16		Mumps.....	1
Typhoid fever.....	62		Poliomyelitis.....	1
Whooping cough.....	3		Scarlet fever.....	7
ARKANSAS.			Smallpox.....	1
Cerebrospinal meningitis.....	1		Tuberculosis.....	194
Chicken pox.....	5		Typhoid fever.....	19
Diphtheria.....	20		CONNECTICUT.	
Influenza.....	6		Cerebrospinal meningitis.....	3
Malaria.....	372		Chicken pox.....	1
Measles.....	1		Diphtheria:	
Ophthalmia neonatorum.....	2		Hartford.....	10
Pellagra.....	70		New Haven.....	11
Poliomyelitis.....	2		Scattering.....	36
Scarlet fever.....	17		Dysentery (bacillary).....	1
Smallpox.....	1		Lethargic encephalitis.....	1
Trachoma.....	3		Malaria.....	1
Tuberculosis.....	7		Measles.....	14
Typhoid fever.....	56		Mumps.....	1
Whooping cough.....	3		Paratyphoid fever.....	1
CALIFORNIA.			Pneumonia (lobar).....	2
Cerebrospinal meningitis:			Poliomyelitis.....	8
Oakland.....	2		Scarlet fever.....	17
Influenza.....	1		Smallpox.....	1
Bethargic encephalitis:			Tuberculosis (pulmonary).....	33
Stockton.....	1		Typhoid fever:	
Poliomyelitis:			Enfield.....	10
Modesto.....	1		New Haven.....	12
Napa.....	1		Scattering.....	11
Oakland.....	1		Whooping cough.....	44
Sacramento.....	6		DELAWARE.	
Smallpox:			Cerebrospinal meningitis:	
Lemoore.....	9		Houston.....	1
Scattering.....	6		Little Creek.....	1
Typhoid fever.....	18			

DELAWARE—continued.		Cases.	ILLINOIS—continued.	
Diphtheria.....	6		Poliomyelitis—continued.	
Malaria.....	1		Macon County—	Cases.
Measles.....	1		Harristown Township.....	1
Scabies.....	1		Marine.....	1
Scarlet fever.....	1		Murphysboro.....	1
Tuberculosis:			Oak Park.....	1
Wilmington.....	9		Peru.....	1
Scattering.....	2		Scarlet fever:	
Typhoid fever.....	7		Chicago.....	43
Whooping cough.....	2		Scattering.....	56
FLORIDA.			Smallpox.....	4
Diphtheria.....	11		Typhoid fever:	
Influenza.....	13		Chicago.....	9
Malaria.....	18		Scattering.....	42
Scarlet fever.....	3		INDIANA.	
Smallpox.....	9		Diphtheria.....	41
Typhoid fever.....	6		Poliomyelitis:	
GEORGIA.			Allen County.....	1
Cerebrospinal meningitis.....	1		Elkhart County.....	2
Diphtheria.....	60		Howard County.....	1
Dysentery (amebic).....	2		Kosciusko County.....	1
Dysentery (bacillary).....	2		Lawrence County.....	1
German measles.....	1		White County.....	1
Hookworm disease.....	14		Rabies in animals:	
Influenza.....	2		Marion County.....	1
Malaria.....	90		Vigo County.....	1
Measles.....	3		Scarlet fever.....	37
Paratyphoid fever.....	1		Smallpox.....	11
Pellagra.....	1		Typhoid fever.....	47
Pneumonia.....	1		IOWA.	
Scarlet fever.....	30		Cerebrospinal meningitis:	
Septic sore throat.....	1		West Point.....	1
Smallpox.....	7		Diphtheria.....	15
Tuberculosis (all forms).....	7		Poliomyelitis:	
Typhoid fever.....	65		Ames.....	1
Whooping cough.....	13		Calmar.....	1
ILLINOIS.			Des Moines.....	1
Cerebrospinal meningitis:			Fort Dodge.....	1
Chicago.....	2		Lakota.....	1
Elgin.....	1		Oelwein.....	2
Kane County—			Roland.....	1
Virgil Township.....	1		Scarlet fever.....	15
Montgomery County—			Smallpox.....	10
Pitman Township.....	1		KANSAS.	
Diphtheria:			Cerebrospinal meningitis.....	4
Chicago.....	85		Diphtheria.....	78
Peoria.....	9		Influenza.....	1
Scattering.....	64		Malaria.....	2
Influenza.....	9		Measles.....	8
Lethargic encephalitis:			Mumps.....	3
Chicago.....	1		Ophthalmia neonatorum.....	1
Peoria.....	1		Pneumonia.....	3
Pneumonia.....	80		Poliomyelitis.....	6
Poliomyelitis:			Scarlet fever.....	90
Alton.....	1		Smallpox.....	10
Antioch.....	1		Tuberculosis.....	33
Chicago.....	5		Typhoid fever.....	63
East St. Louis.....	1		Whooping cough.....	28
Fayette County—			LOUISIANA.	
Seminary Township.....	1		Diphtheria.....	9
La Salle.....	1		Pellagra.....	6
Lee County—			Scarlet fever.....	3
Amboy Township.....	1		Smallpox.....	2

September 9, 1921.

MAINE.

	Cases.
Diphtheria.....	6
Measles.....	3
Poliomyelitis.....	1
Scarlet fever.....	15
Smallpox.....	3
Tuberculosis.....	7
Typhoid fever.....	14
Whooping cough.....	13

MARYLAND.

Cerebrospinal meningitis.....	1
Chicken pox.....	2
Diphtheria.....	29
Dysentery.....	5
Influenza.....	2
Malaria.....	19
Measles.....	11
Mumps.....	6
Ophthalmia neonatorum.....	1
Pellagra.....	1
Pneumonia (all forms).....	22
Poliomyelitis.....	10
Scarlet fever.....	23
Trachoma.....	2
Tuberculosis.....	41
Typhoid fever.....	63
Whooping cough.....	44

MASSACHUSETTS.

Cerebrospinal meningitis.....	3
Chicken pox.....	2
Conjunctivitis (suppurative).....	11
Diphtheria.....	115
Dysentery.....	1
German measles.....	2
Influenza.....	4
Lethargic encephalitis.....	1
Measles.....	36
Mumps.....	19
Ophthalmia neonatorum.....	26
Pneumonia (lobar).....	24
Poliomyelitis.....	14
Scarlet fever.....	52
Septic sore throat.....	1
Tetanus.....	1
Trachoma.....	2
Tuberculosis (all forms).....	136
Typhoid fever.....	23
Whooping cough.....	58

MINNESOTA.

Diphtheria.....	65
Measles.....	2
Poliomyelitis:	
St. Paul.....	5
Scattering.....	48
Scarlet fever.....	65
Smallpox.....	12
Tuberculosis.....	197
Typhoid fever.....	15
Whooping cough.....	4

MISSISSIPPI.

Diphtheria.....	60
Scarlet fever.....	16
Smallpox.....	2
Typhoid fever.....	37

MISSOURI.

	Cases.
Cerebrospinal meningitis.....	2
Chicken pox.....	6
Diphtheria.....	60
Epidemic sore throat.....	8
Measles.....	2
Mumps.....	3
Ophthalmia neonatorum.....	1
Poliomyelitis.....	5
Scarlet fever.....	34
Smallpox.....	6
Trachoma.....	2
Tuberculosis.....	49
Typhoid fever.....	35
Whooping cough.....	12

MONTANA.

Diphtheria.....	3
Poliomyelitis:	
Stevensville.....	1
Rocky Mountain spotted or tick fever:	
Lavina.....	1
Smallpox.....	9
Typhoid fever.....	5

NEBRASKA.

Diphtheria.....	5
Poliomyelitis:	
Cedar Bluffs.....	1
Scarlet fever.....	2
Smallpox.....	9
Tuberculosis.....	9
Whooping cough.....	3

NEW JERSEY.

Cerebrospinal meningitis.....	1
Chicken pox.....	2
Diphtheria.....	83
Influenza.....	2
Malaria.....	2
Measles.....	12
Paratyphoid fever.....	1
Pneumonia.....	34
Poliomyelitis.....	12
Scarlet fever.....	45
Typhoid fever.....	97
Whooping cough.....	96

NEW MEXICO.

Chicken pox.....	1
Diphtheria.....	13
Mumps.....	1
Pellagra.....	1
Scarlet fever.....	2
Trichinosis.....	1
Tuberculosis.....	101
Typhoid fever.....	10
Whooping cough.....	7

NEW YORK.

(Exclusive of New York City.)	
Cerebrospinal meningitis.....	4
Diphtheria.....	113
Influenza.....	3
Lethargic encephalitis.....	4
Measles.....	38
Pneumonia.....	42

1 Week ended Friday. The case of lethargic encephalitis reported for week ended Aug. 26, 1921, Public Health Reports Sept. 2, 1921, p. 2131, should have been reported as meningitis.

NEW YORK—continued.

	Cases.
Poliomyelitis:	
Utica.....	11
Scattering.....	29
Scarlet fever.....	67
Smallpox.....	4
Tetanus.....	2
Typhoid fever.....	63
Whooping cough.....	108

NORTH CAROLINA.

Diphtheria.....	192
Measles.....	10
Poliomyelitis.....	2
Scarlet fever.....	78
Septic sore throat.....	7
Smallpox.....	13
Typhoid fever.....	82
Whooping cough.....	65

SOUTH DAKOTA.

Diphtheria.....	7
Measles.....	1
Scarlet fever.....	14
Smallpox.....	5
Trachoma.....	1
Typhoid fever.....	4

TEXAS.

Diphtheria.....	30
Pellagra.....	5
Scarlet fever.....	15
Typhoid fever.....	32
Whooping cough.....	6

VERMONT.

Chicken pox.....	6
Diphtheria.....	2
Measles.....	10
Mumps.....	4
Poliomyelitis.....	2
Scarlet fever.....	21
Typhoid fever.....	1
Whooping cough.....	13

VIRGINIA.

	Cases.
Rockbridge County.....	1

WASHINGTON.

Chicken pox.....	11
Diphtheria.....	8
Measles.....	5
Mumps.....	3
Poliomyelitis.....	22
Scarlet fever.....	12
Smallpox.....	5
Tuberculosis.....	36
Typhoid fever.....	16
Whooping cough.....	16

WEST VIRGINIA.

Cerebrospinal meningitis:	
Charleston.....	1
Diphtheria.....	17
Poliomyelitis:	
New Martinsville.....	1

Scarlet fever.....	15
Typhoid fever.....	13

WISCONSIN.

Milwaukee:	
Chicken pox.....	1
Diphtheria.....	5
Measles.....	1
Poliomyelitis.....	2
Scarlet fever.....	10
Smallpox.....	2
Tuberculosis.....	6
Typhoid fever.....	2
Whooping cough.....	17

Scattering:

Chicken pox.....	4
Diphtheria.....	49
Measles.....	10
Poliomyelitis.....	15
Scarlet fever.....	40
Smallpox.....	2
Tuberculosis.....	6
Typhoid fever.....	13
Whooping cough.....	42

Report for Week Ended Aug. 27, 1921.

DISTRICT OF COLUMBIA.

	Cases.		Cases.
Diphtheria.....	1	Scarlet fever.....	2
Influenza.....	1	Tuberculosis.....	21
Measles.....	1	Typhoid fever.....	7
Poliomyelitis.....	2	Whooping cough.....	12

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921.

ANTHRAX.

City.	Cases.	Deaths.
Tennessee: Memphis.....	1	1

September 9, 1921.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.**CEREBROSPINAL MENINGITIS.**

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Aug. 20, 1921.		City.	Median for pre- vious years.	Week ended Aug. 20, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
California:				Minnesota:			
Los Angeles.....	1	1	.....	Duluth.....	0	.....	1
Oakland.....	0	1	.....	Minneapolis.....	0	.....	1
Connecticut:				New Jersey:			
Bristol.....	.....	1	.....	Atlantic City.....	0	.....	1
New Haven.....	0	1	1	Bayonne.....	0	.....	1
Illinois:				Orange.....	0	.....	1
Chicago.....	2	1	.....	Trenton.....	0	1	.....
Freeport.....	0	1	.....	New York:			
Oak Park.....	.....	1	.....	Newburgh.....	.....	.....	1
Indiana:				New York.....	5	11	3
Gary.....	0	1	.....	Niagara Falls.....	0	.....	1
Marion.....	0	.....	1	Ohio:			
Maine:				Lima.....	0	1	1
Portland.....	0	.....	1	Pennsylvania:			
Massachusetts:				Philadelphia.....	1	1	.....
Boston.....	0	2	1	Utah:			
Framingham.....	1	1	1	Salt Lake City.....	0	.....	1
Leominster.....	0	.....	1	Virginia:			
Springfield.....	0	1	.....	Richmond.....	0	.....	1
Michigan:				Roanoke.....	0	1	1
Ironwood.....	0	1	1				
Kalamazoo.....	0	2	2				
Port Huron.....	0	1	1				

DIPHTHERIA.

See p. 2235; also Telegraphic weekly reports from States, p. 2225.

INFLUENZA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Arizona:			Maryland:		
Tucson.....	.....	1	Baltimore.....	1	.....
California:			Minnesota:		
Los Angeles.....	6	.....	Minneapolis.....	.....	1
District of Columbia:			New Jersey:		
Washington.....	1	.....	Jersey City.....	1	.....
Illinois:			New York:		
Chicago.....	6	1	New York.....	6	1
Indiana:			Ohio:		
Terre Haute.....	1	.....	Toledo.....	.....	1
Louisiana:			Pennsylvania:		
New Orleans.....	.....	1	Philadelphia.....	1	.....

LETHARGIC ENCEPHALITIS.

Massachusetts:			Nebraska:		
Northampton.....	.....	1	Omaha.....	.....	1

MALARIA.

Alabama:			Arkansas:		
Anniston.....	3	.....	Little Rock.....	10	.....
Birmingham.....	2	.....	North Little Rock.....	1	.....
Montgomery.....	3	1	California:		
Tuscaloosa.....	2	.....	Sacramento.....	1	.....

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

MALARIA—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Connecticut:			Pennsylvania:		
Greenwich.....	1		Philadelphia.....		1
New Britain.....	1		South Carolina:		
Georgia:			Charleston.....		1
Atlanta.....	4		Tennessee:		
Brunswick.....	2		Memphis.....	6	3
Savannah.....	7	1	Texas:		
Valdosta.....			Austin.....		1
Illinois:			Beaumont.....		1
East St. Louis.....	1		Dallas.....	5	1
Louisiana:			Waco.....		
New Orleans.....	2		Virginia:		
New York:			Richmond.....	1	
New York.....	5				

MEASLES.

See p. 2235; also Telegraphic weekly reports from States, p. 2225.

PELLAGRA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Massachusetts:		
Birmingham.....	1	1	Waltham.....	1	1
Montgomery.....			North Carolina:		
Arkansas:			Raleigh.....		1
Little Rock.....	1		Winston-Salem.....	1	1
District of Columbia:			Oklahoma:		
Washington.....	1		Tulsa.....	1	
Georgia:			Tennessee:		
Atlanta.....		1	Memphis.....	1	1
Brunswick.....	2		Virginia:		
Kansas:			Portsmouth.....		2
Parsons.....	1				
Louisiana:					
Baton Rouge.....	1				
New Orleans.....	2	2			

PNEUMONIA (ALL FORMS).

Alabama:			Illinois—Continued.		
Birmingham.....	1		Erlin.....	1	
Montgomery.....		2	Oak Park.....		2
Arizona:			Peoria.....		2
Tucson.....		3	Rockford.....		1
California:			Springfield.....	1	1
Alameda.....	1		Indiana:		
Berkeley.....	1		Gary.....		1
Long Beach.....	2	1	Indianapolis.....		1
Los Angeles.....	47	10	South Bend.....		
Oakland.....	2	2	Kansas:		
Pasadena.....		1	Kansas City.....	1	
Riverside.....		1	Kentucky:		
San Diego.....	1	1	Covington.....		2
Santa Cruz.....	2		Lexington.....		2
Stockton.....		1	Louisville.....	1	1
Colorado:			Paducah.....	1	
Denver.....	6		Louisiana:		
Connecticut:			New Orleans.....		8
Bridgeport.....	1		Maryland:		
District of Columbia:			Baltimore.....		15
Washington.....		3	Massachusetts:		
Georgia:			Arlington.....	1	
Atlanta.....		8	Belmont.....		1
Brunswick.....		1	Boston.....		8
Savannah.....		1	Cambridge.....	1	1
Illinois:			Chelsea.....	1	
Alton.....	1		Easthampton.....	1	1
Aurora.....		1	Fall River.....		2
Chicago.....	54	13	Framingham.....		2
Danville.....	1	1	Holyoke.....		1

September 9, 1921.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Massachusetts—Continued.			New York—Continued.		
Lawrence.....	1		New York.....	135	47
Lowell.....	1	1	Niagara Falls.....		1
Methuen.....	1		Peekskill.....	1	
New Bedford.....		1	Rochester.....	5	3
Somerville.....	1		Schenectady.....	2	2
Springfield.....	2		Syracuse.....	3	
Watertown.....		1	White Plains.....	1	
Woburn.....		1	Yonkers.....	1	
Worcester.....		1	North Carolina:		
Michigan:			Charlotte.....		3
Detroit.....	12	9	Ohio:		
Grand Rapids.....	1		Akron.....	2	
Hamtramck.....		1	Cincinnati.....		4
Highland Park.....	1		Cleveland.....	11	
Ironwood.....	1	1	Columbus.....	1	1
Ishpeming.....	1		Dayton.....	1	
Kalamazoo.....	2	1	Findlay.....	1	1
Pontiac.....	1		Lima.....		1
Minnesota:			Springfield.....		1
Minneapolis.....		3	Toledo.....		2
St. Paul.....		4	Youngstown.....	1	
Missouri:			Zanesville.....		1
Kansas City.....		4	Oklahoma:		
Nebraska:			Oklahoma City.....		3
Lincoln.....		2	Pennsylvania:		
Omaha.....		2	Philadelphia.....	29	17
New Jersey:			Rhode Island:		
Bloomfield.....	1		Providence.....		4
Elizabeth.....		2	Tennessee:		
Irvington.....	1		Memphis.....		9
Jersey City.....	1		Nashville.....		1
Kearny.....		3	Texas:		
Orange.....	2	2	Dallas.....		1
Perth Amboy.....	1		El Paso.....		3
Summit.....	1	1	Utah:		
Trenton.....	3		Salt Lake City.....		2
New York:			Vermont:		
Albany.....	3		Rutland.....		1
Buffalo.....		6	Virginia:		
Elmira.....	2		Richmond.....		3
Geneva.....		1	West Virginia:		
Jamesstown.....			Parkersburg.....		1
Lackawanna.....	3		Wheeling.....		3
Middletown.....	1	1	Wisconsin:		
Mount Vernon.....	2	1	Racine.....		2

RABIES IN ANIMALS.

City.	Cases.	City.	Cases.
California:		New Jersey:	
Pasadena.....	1	Rahway.....	2
Illinois:		Ohio:	
East St. Louis.....	1	Ironhton.....	1
Massachusetts:			
Winthrop.....	2		

SCARLET FEVER.

See p. 2235; also Telegraphic weekly reports from States, p. 2225.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Aug. 20, 1921.		City.	Median for pre- vious years.	Week ended Aug. 20, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
California:				Michigan:			
Los Angeles.....	0	1	.....	Ann Arbor.....	0	1	.....
Oakland.....	0	1	.....	Battle Creek.....	0	1	.....
Sacramento.....	0	3	.....	Detroit.....	0	10	.....
Colorado:				Grand Rapids.....	0	1	1
Trinidad.....		1	.....	Highland Park.....	0	1	.....
Connecticut:				Michigan:			
Bridgeport.....	0	1	1	Minneapolis.....	0	5	.....
Fairfield.....		1	1	Rochester.....		1	.....
Greenwich.....	0	1	.....	St. Paul.....	0	2	.....
District of Columbia:				Missouri:			
Washington.....	0	2	.....	St. Louis.....	0	3	1
Illinois:				New Jersey:			
Alton.....	0	2	.....	Paterson.....		4	.....
Bloomington.....	0	1	.....	West Orange.....		1	1
Chicago.....	6	2	3	New York:			
La Salle.....	0	1	.....	Buffalo.....	0	1	1
Mattoon.....		1	.....	New York.....	10	2	.....
Pooria.....	0	1	1	Port Chester.....		1	.....
Rockford.....	0	2	.....	Poughkeepsie.....	0	1	.....
Springfield.....	0	1	.....	Schenectady.....	0	1	.....
Indiana:				Ohio:			
South Bend.....	0	1	1	Akron.....	0	2	.....
Iowa:				Chillicothe.....		1	.....
Davenport.....	0	1	1	Cleveland.....	0	2	.....
Des Moines.....	0	1	1	Lorain.....	0	1	.....
Dubuque.....	0	1	.....	Youngstown.....	0	2	1
Sioux City.....	0	1	.....	Pennsylvania:			
Waterloo.....		1	1	Philadelphia.....	0	1	.....
Kentucky:				Washington:			
Covington.....	0	1	.....	Everett.....	0	1	.....
Maryland:				Seattle.....	0	1	.....
Baltimore.....	12	2	.....	West Virginia:			
Massachusetts:				Bluefield.....	0	1	.....
Boston.....	1	2	.....	Wisconsin:			
Lynn.....	0	1	.....	Kenosha.....	0	3	1
Methuen.....	0	1	1	Milwaukee.....	0	2	.....
Pittsfield.....	0	3	.....	Racine.....	0	1	.....
Springfield.....	0	1	.....			
Waltham.....	0	1	.....			

TETANUS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Minnesota:		
Mobile.....		1	St. Paul.....		1
Arkansas:			New York:		
North Little Rock.....	1	.....	Schenectady.....	1	1
Texas:			Texas:		
Chicago.....	2	1	Corpus Christi.....	1	.....
Maine:			West Virginia:		
Portland.....	1	.....	Charleston.....		1
Michigan:					
Detroit.....	3	1			

September 9, 1921.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Aug. 20, 1921.		City.	Median for pre- vious years.	Week ended Aug. 20, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Montana:			
Birmingham.....	0	1	.....	Great Falls.....	0	1	.....
Mobile.....	0	1	.....	Nebraska:			
Sacramento.....	0	2	.....	Omaha.....	3	2	.....
San Diego.....	0	1	.....	New Hampshire:			
Colorado:				Manchester.....	1		
Denver.....	7	8	.....	New York:			
District of Columbia:				Jamestown.....	0	1	.....
Washington.....	0	2	.....	North Tonawanda.....	1		
Georgia:				North Carolina:			
Savannah.....	0	1	.....	Winston-Salem.....	0	3	.....
Illinois:				Ohio:			
Aurora.....	0	1	.....	Barberton.....	0	1	.....
Indiana:				Marion.....	1	2	.....
Marion.....	0	3	.....	New Philadelphia.....	0	2	.....
Iowa:				South Carolina:			
Sioux City.....	1	2	.....	Charleston.....	0	1	.....
Kansas:				Tennessee:			
Atchison.....	1	1	.....	Knoxville.....	0	1	.....
Hutchinson.....	1	1	.....	Nashville.....	0	1	.....
Louisiana:				Utah:			
New Orleans.....	0	1	.....	Salt Lake City.....	3	4	.....
Michigan:				Washington:			
Battle Creek.....	0	1	.....	Seattle.....	5	3	.....
Minnesota:				Spokane.....	5	3	.....
Duluth.....	0	4	.....	Tacoma.....	1	2	.....
Hibbing.....	0	1	.....	Vancouver.....	0	1	.....
Minneapolis.....	2	2	.....			
St. Paul.....	1	3	.....			

TUBERCULOSIS.

See p. 2235; also Telegraphic weekly reports from States, p. 2225.

TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Aug. 20, 1921.		City.	Median for pre- vious years.	Week ended Aug. 20, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				California—Continued.			
Birmingham.....	11	7	1	Richmond.....		2	.....
Mobile.....	2	1	.....	Sacramento.....	1	4	.....
Montgomery.....	1	1	.....	Stockton.....	2		1
Arizona:				Colorado:			
Tucson.....	0		1	Denver.....	5	4	1
Arkansas:				Connecticut:			
North Little Rock.....	0	2	.....	Danbury.....	0	1	.....
California:				New Haven.....	2	7	1
Alameda.....	0	2	.....	New London.....	0		
Long Beach.....	0	2	.....	Waterbury.....	0	2	.....
Los Angeles.....	4	4	2	District of Columbia:			
Oakland.....	2	6	1	Washington.....	11	7	.....

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

TYPHOID FEVER—Continued.

City.	Median for pre- vious years.	Week ended Aug. 20, 1921.		City.	Median for pre- vious years.	Week ended Aug. 20, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Georgia:				New Hampshire—Contd.			
Atlanta.....	5	6	.....	Keene.....	0	1	.....
Brunswick.....	0	1	.....	Manchester.....	0	1	.....
Macon.....	0	1	2	New Jersey:			
Savannah.....	3	3	1	Atlantic City.....	1	1	.....
Illinois:				Bayonne.....	0	2	.....
Bloomington.....	0	1	.....	Hoboken.....	0	1	.....
Chicago.....	14	5	.....	Jersey City.....	2	5	.....
Danville.....	0	1	.....	Port Amboy.....	0	1	.....
Freeport.....	0	1	.....	Plainfield.....	0	2	.....
La Salle.....	1	1	.....	Trenton.....	1	4	.....
Springfield.....	1	3	.....	New Mexico:			
Indiana:				Albuquerque.....		2	.....
Huntington.....	0	3	.....	New York:			
Indianapolis.....	3	5	.....	Albany.....	0	2	.....
Kokomo.....	0	4	.....	Auburn.....	0	3	.....
Logansport.....	0	1	.....	Buffalo.....	4	7	1
Marion.....	1	2	.....	Cohoes.....	0	1	.....
Iowa:				Elmira.....	0	1	.....
Mason City.....	0	3	.....	Ithaca.....	0	1	.....
Kansas:				Lockport.....	0	1	.....
Coffeyville.....	2	1	.....	Newburgh.....	0	2	.....
Kansas City.....	2	2	.....	New York.....	42	41	3
Wichita.....	6	21	2	Rochester.....	0	1	.....
Kentucky:				Syracuse.....	1	24	.....
Covington.....	0	2	2	Troy.....	1	3	.....
Lexington.....	1	2	1	North Carolina:			
Louisville.....	8	1	.....	Charlotte.....	1	1	.....
Paducah.....	1	3	.....	Durham.....	2	2	.....
Louisiana:				Winston-Salem.....	5	1	.....
Baton Rouge.....	0	1	.....	Ohio:			
New Orleans.....	9	1	1	Akron.....	2	6	.....
Maine:				Bucyrus.....		1	.....
Bangor.....	1	2	.....	Canton.....	0	1	.....
Biddeford.....	0	1	1	Chillicothe.....	0	2	.....
Lewiston.....		1	.....	Cincinnati.....	4	9	.....
Maryland:				Cleveland.....	6	9	.....
Baltimore.....	17	13	1	Columbus.....	2	3	.....
Cumberland.....	2	4	1	Dayton.....	1	4	.....
Massachusetts:				Findlay.....	0	1	.....
Adams.....	0	1	.....	Hamilton.....	0	1	.....
Boston.....	4	3	1	Kenmore.....		1	.....
Chicopee.....	0	1	.....	Lima.....	1	2	.....
Fall River.....	7	2	.....	Lorain.....	0	1	1
Holyoke.....	0	2	.....	Mansfield.....		1	.....
Lawrence.....	1	2	.....	Marion.....	0	1	.....
Lowell.....	1	1	.....	Middletown.....	0	2	.....
Newburyport.....	0	1	.....	New Philadelphia.....	0	1	.....
Springfield.....	1	1	.....	Niles.....		3	.....
Michigan:				Piqua.....	0	1	.....
Ann Arbor.....	1	1	.....	Portsmouth.....	0	1	.....
Battle Creek.....	0	2	.....	Springfield.....	1	3	.....
Detroit.....	9	61	1	Youngstown.....	1	7	.....
Grand Rapids.....	0	1	.....	Oklahoma:			
Marquette.....	0	3	.....	Oklahoma City.....	1	1	1
Muskegon.....	1	1	.....	Tulsa.....	6	6	.....
Minnesota:				Pennsylvania:			
Minneapolis.....	3	3	.....	Philadelphia.....	22	15	1
St. Paul.....	0	1	.....	Rhode Island:			
Missouri:				Pawtucket.....	0	1	.....
Cape Girardeau.....	0	1	.....	Tennessee:			
Joplin.....	0	1	.....	Knoxville.....	3	2	.....
Kansas City.....	7	5	.....	Memphis.....	10	2	.....
St. Joseph.....	1	1	.....	Nashville.....	12	5	1
St. Louis.....	14	9	2	Texas:			
Montana:				Dallas.....	5	3	3
Great Falls.....	2	2	.....	El Paso.....	0	2	1
Nebraska:				Utah:			
Lincoln.....	0	3	.....	Salt Lake City.....	2	1	1
Omaha.....	2	2	2	Vermont:			
Nevada:				Burlington.....	0	1	.....
Reno.....	1	2	.....	Virginia:			
New Hampshire:				Danville.....	1	3	1
Berlin.....	0	2	.....	Lynchburg.....	4	3	.....
Dover.....	0	4	.....	Norfolk.....	5	1	.....

September 9, 1921.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

TYPHOID FEVER—Continued.

City.	Median for pre- vious years.	Week ended Aug. 20, 1921.		City.	Median for pre- vious years.	Week ended Aug. 20, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Virginia—Continued.							
Petersburg.....	0	2	1	West Virginia—Contd.			
Portsmouth.....	3	3	—	Huntington.....	2	2	—
Roanoke.....	3	5	—	Martinsburg.....	0	—	1
Washington.....	1	4	—	Morgantown.....	0	—	3
Seattle.....	1	1	—	Parkersburg.....	0	—	3
Tacoma.....	—	—	—	Wheeling.....	2	1	—
West Virginia:				Wisconsin:			
Bluefield.....	1	1	—	Green Bay.....	0	2	—
Charleston.....	8	3	—	Sheboygan.....	0	1	—

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Anniston.....	17,734	—	1	—	—	—	—	—	—	—
Birmingham.....	178,270	42	6	—	30	5	—	—	—	5
Mobile.....	60,151	13	1	—	—	2	—	—	—	1
Montgomery.....	43,464	27	2	—	—	—	—	—	1	3
Tuscaloosa.....	11,996	—	—	—	—	—	—	—	1	—
Arizona:										
Tucson.....	20,292	22	—	1	—	—	—	—	—	4
Arkansas:										
Fort Smith.....	28,811	—	2	—	—	—	—	—	—	—
Little Rock.....	64,997	—	6	—	—	—	1	—	1	—
North Little Rock.....	14,048	—	1	—	—	—	—	—	1	—
California:										
Alameda.....	28,806	3	—	1	—	—	1	—	—	—
Bakersfield.....	18,638	7	—	—	—	—	—	—	—	1
Berkeley.....	55,886	12	—	—	—	—	—	—	—	—
Eureka.....	12,923	3	—	—	—	—	—	—	—	1
Long Beach.....	55,593	13	4	—	—	3	—	—	—	1
Los Angeles.....	576,673	143	48	—	1	7	—	20	—	21
Oakland.....	216,361	43	—	—	1	—	—	6	—	4
Pasadena.....	45,354	15	—	—	2	1	—	—	—	1
Richmond.....	16,843	1	1	—	—	—	—	—	—	—
Riverside.....	19,341	7	16	—	—	—	—	—	—	3
Sacramento.....	65,857	28	2	—	—	1	1	1	1	—
San Bernardino.....	18,721	4	1	—	—	—	—	—	—	1
San Diego.....	74,683	25	1	—	—	—	—	5	—	1
Santa Cruz.....	10,917	2	1	—	—	—	—	1	—	1
Stockton.....	40,296	11	2	—	—	—	—	—	—	—
Vallejo.....	21,107	3	—	—	—	—	—	—	—	—
Colorado:										
Colorado Springs.....	30,105	14	3	2	—	—	—	7	—	3
Denver.....	256,369	64	5	—	—	3	—	—	—	7
Connecticut:										
Bridgeport (town) ¹	143,538	16	3	—	1	2	—	7	—	1
Bristol (town) ¹	20,620	2	1	—	—	—	—	2	—	—
Danbury (city).....	18,943	6	—	—	—	1	—	—	—	—
Derby (town) ¹	11,238	7	—	—	—	—	—	—	—	—
Fairfield (town).....	11,475	1	1	—	—	—	—	—	—	—
Greenwich (town).....	22,123	—	2	—	2	—	—	—	—	—
Manchester (town).....	18,370	1	—	—	—	1	—	—	—	—
Meriden (city).....	29,842	—	1	—	—	—	—	1	—	—
Milford (town).....	10,193	4	—	—	—	—	—	—	—	—
New Haven (town) ¹	162,519	—	10	1	—	—	—	4	—	—
New London (town) ¹	25,688	7	—	—	—	—	—	—	—	—
Norwalk (town) ¹	27,700	5	—	—	—	—	—	—	—	—
Norwich (city).....	22,304	4	1	—	—	—	—	—	1	—
Waterbury (town) ¹	91,410	13	2	—	—	—	—	4	—	1
Delaware:										
Wilmington.....	110,168	22	3	—	—	1	—	—	2	—

¹Coextensive with city of same name.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
District of Columbia:										
Washington	437,571	102	2	1	1		2		15	9
Georgia:										
Atlanta	200,616	46	4				5		1	2
Brunswick	14,413	4			1		1			
Macon	52,905	5	1	1			2			2
Savannah	83,252	45	6						1	5
Valdosta	10,733	3	2				2		1	
Idaho:										
Boise	21,393	7					1			
Illinois:										
Alton	24,682	3								
Aurora	36,397	7	6	1			1		8	
Bloomington	28,725	10							1	2
Bitz Island	11,424						2			
Centrada	12,491	5								
Chicago	2,701,705	474	100	10	6	1	20	1	218	29
Cicero	44,995	7	1		1				4	1
Dauville	33,750	10		1						
East St. Louis	65,740	11							3	1
Eglin	27,454	8	1				1			
Evanston	57,215	9					1			
Forest Park	10,768	3	1				1			
Freeport	19,669	5								
Galesburg	23,534	3	1							
Jacksonville	15,713	6								
Kewanee	16,026	3	1							
La Salle	13,050	3							3	2
Mattoon	13,532	4								
Oak Park	39,830	9			1					1
Pekin	12,086		2							
Pearl	76,121	19		1			3		1	1
Quincy	35,978	6								
Rockford	65,651	18	2				2			2
Rock Island	35,177	7							1	
Springfield	59,183	17	2	1			2			1
Indiana:										
Crawfordsville	10,139	1							1	
East Chicago	35,967	4								
Elkhart	24,277	10					1			
Fort Wayne	36,549	7	4						6	
Frankfort	11,585	4					3			
Gary	55,378	12	1				1			3
Hammond	36,004	6	6				2			
Huntington	14,000	2								
Indianapolis	314,194	60	8		1				13	8
Kokomo	30,067	7								
La Fayette	22,486	5	3						1	
Logansport	21,626	8								
Marion	23,747	5	3				3			
Mishawaka	15,195	2								
Muncie	36,624	8							1	1
Richmond	26,765	4							1	2
South Bend	70,983	7	2				1		1	
Terre Haute	56,083	20								2
Iowa:										
Burlington	24,057	9								
Cedar Rapids	45,566									
Davenport	56,727									
Des Moines	126,468	1								
Dubuque	39,141									
Mason City	20,065	4							2	
Muscatine	17,008	12								
Sioux City	71,227	30								
Waterloo	36,230									
Kansas:										
Atchison	12,630	4	4	1					2	
Coffeyville	13,452	5	3	1			2		1	
Fort Scott	10,603	4					3			
Hutchinson	23,298									
Kansas City	101,177								6	
Lawrence	12,456	6	4							
Leavenworth	16,912	5	1							
Parsons	16,028	6	2						4	

September 9, 1921.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Kansas—Continued.										
Salina	15,085	3								
Topeka	50,022	6	15				4		2	1
Wichita	72,128	21	4				11			
Kentucky:										
Covington	57,121	17	1				1		2	2
Lexington	41,534	15								
Louisville	234,801	65	5		10		1		6	8
Paducah	24,735		1						2	
Louisiana:										
Baton Rouge	21,782	6	2		*		1		1	1
New Orleans	387,219	130	3				1		21	15
Maine:										
Auburn	16,985	5								
Bangor	25,978								2	
Bath	14,731	2								
Biddeford	18,008	3	2				1			
Lewiston	31,791	1					1			
Portland	69,272	21	3							
Sanford	10,691	2	1							
Maryland:										
Baltimore	733,826	197	12	2	5		6		27	18
Cumberland	29,837	10	2				2		2	
Massachusetts:										
Adams	12,967								1	
Arlington	18,665	1								
Attleboro	19,731	2							1	1
Belmont	10,749	1								
Beverly	22,561	5								
Boston	748,060	164	30	5	16	2	14	2	39	18
Braintree	10,580	2								
Brookline	37,748	3							1	1
Cambridge	109,694	24	2		3		3		6	
Chelsea	43,184	14	1				3		2	2
Chicopee	36,214	8	1							
Dedham	10,792	3								
Easthampton	11,261	1								
Everett	49,120	3	2				3			
Fall River	120,485	26	3				1		4	2
Framingham	17,033	7	1							
Gardner	16,971	5					2		2	1
Greenfield	15,462	2					2			
Holyoke	60,203	12							1	
Lawrence	94,270	21	4	1					6	1
Leominster	19,744	3	1				1			
Lowell	112,479	27	1							
Lynn	99,148	23	4		3		3		10	1
Malden	49,103	9	1		5		1		1	1
Medford	39,038	8								
Methuen	15,189	6	1	1					1	
New Bedford	121,217	22	1						7	2
Newburyport	15,618	5								
Northampton	21,951	8			1					
Norwood	12,627	1								
Peabody	19,552	3								
Pittsfield	41,751	8							2	2
Plymouth	13,045	2								
Quincy	47,876	7			3					
Salem	42,529	12	1						1	
Saugus	10,874	2								
Somerville	63,091	5	1						2	
Springfield	129,563	37	1						3	3
Taunton	37,137	7							1	1
Wakefield	13,025	3	1							
Waltham	39,915	8								
Watertown	21,457	2	1						2	
Westfield	18,604	2	1							
Winthrop	15,455	3								
Woburn	16,574	3								
Worcester	179,754	39	4						7	3

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued

September 9, 1921.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New Jersey—Continued.										
Plainfield	27,700	8	2				3			1
Rahway	11,042	1								
Roosevelt	11,047	5		1						
Summit	10,174	1					1			
Trenton	119,289	38							4	4
West Hoboken	40,068	7	1						1	
West New York	29,926	3			2		1			
West Orange	15,573	3								
New Mexico:										
Albuquerque	15,157	10							2	1
New York:										
Albany	113,344		11				1		2	
Auburn	36,192	4	1		1					
Buffalo	506,775	107	18	2			5		12	15
Cohoes	22,987	3	1							
Elmira	45,305	9							2	
Geneva	14,648	4								1
Glens Falls	16,638	7								
Hudson	11,745	6	2				1			
Ithaca	17,004	3							1	1
Jamestown	38,917	8	1				1			
Lackawanna	17,918	4					4		2	
Lockport	21,308	6							1	
Middletown	18,420								1	
Mount Vernon	42,726	3	1	1						
Newburgh	30,366	4								
New York	5,621,151	1,086	102	9	68	3	40	2	198	103
Niagara Falls	50,760	11	3				3		1	
North Tonawanda	15,482	5								1
Olean	20,506	6								
Peekskill	15,868	2							1	
Port Chester	16,573	2								
Poughkeepsie	35,000	12							2	
Rochester	295,750	61	20	1			2		8	3
Saratoga Springs	13,181	9								
Schenectady	88,723	14	6							
Syracuse	171,717	51	17	3	3		5		2	4
Troy	72,013	19							1	
Watertown	31,285						1			
Watervliet	16,073									
White Plains	21,031	5								
Yonkers	100,226	13	1							1
North Carolina:										
Charlotte	46,338	12	4	1					2	
Durham	21,719	3	2							
Greensboro	19,861	2								
Baleigh	24,418	6								
Rocky Mount	12,742	2								
Wilmington	33,372	5								1
Winston-Salem	48,395	11	2						1	1
North Dakota:										
Fargo	21,961		2				4			
Grand Forks	14,010		1				2			
Ohio:										
Akron	208,435	31	3				9		3	
Barberton	18,811	3					1			
Bucyrus	10,425	2								
Canton	87,091	6	1				3		1	
Chillicothe	15,831	4							1	1
Cincinnati	401,247	106	9	1	1		6		30	8
Cleveland	796,836		20	1	1		12			
Columbus	237,031	40	5				5		5	5
Coshocton	10,847				1					
Dayton	152,559	30	3				3			
East Cleveland	27,292	4							3	1
Findlay	17,021	5								
Hamilton	39,675	6	1				1			1
Ironton	14,007	3								
Lancaster	14,705	11								1
Lima	41,306	10	3						3	2
Lorain	37,295	9	2		1		2		1	

1 Pulmonary tuberculosis only.

CITY REPORTS FOR WEEK ENDED AUG. 29, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Ohio—Continued.										
Mansfield	27,824	7								1
Marion	27,801							1		
Middletown	23,594	2							2	1
Newark	26,718	7								
New Philadelphia	10,718		1				2	1		
Niles	13,080	8		1						
Norwood	24,966								1	
Piqua	15,044	1								
Portsmouth	33,011	9							2	1
Sandusky	22,867	3						1		
Springfield	60,840	14	23		1		1			
Tiffin	14,375	3								
Toledo	243,100	52	24	2			4	1	2	5
Youngstown	132,358	18	4		1		7		1	
Zanesville	29,569	7	1							
Oklahoma:										
Oklahoma City	91,258	16	6				1		3	1
Tulsa	72,075		3		1					
Pennsylvania:										
Philadelphia	1,823,158	396	34	1	1		20		34	34
Rhode Island:										
Cranston	29,407	4	1							
Newport	30,255	4								
Pawtucket	64,248	10	2							
Providence	237,595	58	1	1	1					4
South Carolina:										
Charleston	67,937	30								5
Columbia	37,524		1				1			
South Dakota:										
Sioux Falls	25,176	3					1			
Tennessee:										
Knoxville	77,818		1	1	1		1		3	
Memphis	162,351	47	9				3	1	1	
Nashville	118,342	39	3				1	1	4	
Texas:										
Austin	34,876	12								1
Beaumont	40,422	8	1							
Corpus Christi	10,522	2	1							
Dallas	158,976	35	1		1		1		2	2
El Paso	77,543	47	1				1		4	
Galveston	44,255	16								1
Waco	36,500	11		1						
Utah:										
Salt Lake City	118,110	19	2		1		1		2	1
Vermont:										
Barre	10,008		1	1	1		1			
Burlington	22,779	7	3				2			1
Rutland	14,954	1								
Virginia:										
Alexandria	18,020	4								
Danville	21,539	4	2		2					1
Lynchburg	29,956		2							
Norfolk	115,777		2	1					4	1
Petersburg	31,002	6	2				1			
Portsmouth	54,987	14							2	2
Richmond	171,667	46	7		1		3		6	
Roanoke	86,842	13	13				2			1
Washington:										
Aberdeen	15,337	2								
Seattle	315,652		13		4		3			
Spokane	104,437		2				5			
Tacoma	96,965							4		
West Virginia:										
Bluefield	15,262		1							
Charleston	38,608	14					2	1		2
Fairmont	17,851		1							
Huntington	50,177	16								
Martinsburg	12,515	1								
Morgantown	12,127							7		
Moundsville	10,069	2	2							
Parkersburg	20,030	5	3							
Wheeling	54,322	19	6		4		3			1

September 9, 1921.

CITY REPORTS FOR WEEK ENDED AUG. 20, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

FOREIGN AND INSULAR.

CANADA.

Communicable Diseases—Province of Ontario—July, 1921.

Information received under date of August 5, 1921, relative to the occurrence of communicable diseases in the Province of Ontario, Canada, during the month of July, 1921, shows a total of 1,158 cases, with 292 deaths, as compared with 2,348 cases, with 288 deaths, reported for the same period in the year 1920. A marked decrease was noted in smallpox prevalence, 104 cases, with 1 death, having been reported, as against 142 cases for the corresponding month of the preceding year. A decrease of 69 cases was noted in the incidence of scarlet fever.

Venereal diseases.—The number of venereal diseases reported by the medical health officers was 367, an increase of 101 cases over the number for July, 1920. The increase was stated to be attributable to the fact that physicians are now making prompt returns of such cases to the provincial health department.

Typhoid Fever Outbreak—London.

Under date of August 23, 1921, an outbreak of typhoid fever was reported at London, Canada, with a total of 77 cases, with 2 deaths, notified during the week ended August 20, 1921. The outbreak occurred in the Ontario Hospital for the Insane and was stated to be caused by infected water supply. The water supply of the hospital was stated not to be connected with that of the city of London.

CAPE VERDE ISLANDS.

Plague—St. Vincent.

Plague was reported present, August 18, 1921, at St. Vincent, Cape Verde Islands, with six cases and two deaths.

(2242)

September 9, 1921.

CUBA.**Communicable Diseases—Habana.¹**

Communicable diseases have been reported at Habana as follows:

Disease.	June 21-30, 1921.		Remaining under treatment June 30, 1921.	Disease.	June 21-30, 1921.		Remaining under treatment June 30, 1921.
	New cases.	Deaths.			New cases.	Deaths.	
Chicken pox.....	1	.....	3	Paratyphoid fever.....	1	.....	1
Leprosy.....	.....	.....	11	Scarlet fever.....	3	1	5
Malaria.....	39	.....	137	Smallpox.....	7	.....	12
Measles.....	1	.....	2	Typhoid fever.....	19	6	31

¹ From the interior, 27.² From the interior, 2.³ From the interior, 17.**Quarantine Against Arrivals from Belize.**

Under date of August 26, 1921, quarantine on account of yellow fever was ordered into effect at Cuban ports against arrivals from Belize, British Honduras.

DOMINICAN REPUBLIC.**Smallpox.**

Smallpox has been reported in the Dominican Republic, under date of August 25, 1921, as follows: In eastern Provinces, 2,000 cases, estimated; present at La Romana with many cases; at San Pedro de Macoris, during week ended August 25, 1921, 40 cases with 2 deaths, and in the same Province 400 cases present on sugar estates.

JAMAICA.**Infectious Disease (Alastrim or Kaffir Pox).**

During the three weeks ended August 13, 1921, 370 cases of alastrim or Kaffir pox were reported in the island of Jamaica.

Typhoid Fever—Kingston.

During the period under report 26 cases of typhoid fever were reported at Kingston, Jamaica.

MEXICO.**Plague—Plague-Infected Rodents—Tampico.**

During the week ended August 21, 1921, one case of and one death from plague were reported at Tampico, Mexico. During the same period 1,900 rodents were taken and 15 rodents were found plague infected.

¹ In sequence with report for June 11-20, 1921, Public Health Reports, July 8, 1921, p. 1584.

During the week ended August 28, 1921, no new cases of plague or deaths therefrom were reported. During that period 1,700 rodents were captured and 10 were found plague infected.

Yellow Fever—District of Tuxpam.

Six fatal cases of yellow fever have been reported in the district of Tuxpam, Mexico, occurring as follows: July 14, 1921, one case at Zapotal; July 19, four cases at Alamo; July 25, one case at Tuxpam. The cases were stated to have originated at Alamo, a camp situated 30 kilometers from Tuxpam.

Yellow Fever—Territory of Quintana Roo.

Under date of August 23, 1921, a case of yellow fever was reported as having occurred at Playa Obispo, Territory of Quintana Roo, situated on the eastern coast of the Yucatan peninsula, Mexico. The patient was stated to be a soldier stationed in garrison.

POLAND.

Plague.

According to information dated August 9, 1921, eight cases of plague have been reported in a border province of Poland.

PORTO RICO.

Plague—Caguas.

During the period August 7 to 13, 1921, three cases of plague, with two deaths, were reported at Caguas, Porto Rico.

UNION OF SOUTH AFRICA.

Influenza—Uitenhage.¹

Information received under date of July 1, 1921, shows the occurrence at Uitenhage, Cape Province, Union of South Africa, of about 600 cases of influenza, including 12 cases with pneumonic complications, among Europeans, from the beginning of the outbreak in May, 1921, to June 25, 1921.

¹ Public Health Reports, Aug. 19, 1921, p. 2028.

September 9, 1921.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.**Reports Received During Week Ended Sept. 9, 1921.¹****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				June 5-25, 1921: Deaths, 32,103.
Bombay.....	July 3-9.....	4	2	
Calcutta.....	June 26-July 2.....	51	46	
Karachi.....	July 17-23.....	12	12	
Rangoon.....	July 10-16.....	2	2	
Siam:				
Bangkok.....	June 26-July 2.....	2		

PLAQUE.

Place.	Date.	Cases.	Deaths.	Remarks.
British East Africa:				
Kenya Colony— Kisumu.....	June 26-July 2.....			Present.
Cape Verde Islands:				
St. Vincent.....	Aug. 12-18.....	6	3	
Ceylon:				
Colombo.....	July 9-16.....		1	Rodent plague, 2 cases.
India.....				July 3-16, 1921: Cases, 572; deaths, 403.
Bombay.....	July 3-9.....	7	5	
Madras presidency.....	July 17-23.....	38	21	
Rangoon.....	July 10-16.....	68	57	
Mexico:				
Tampico.....	Aug. 15-21.....	1	1	Aug. 15-28, 1921: Rats taken, 3,603; rats found plague infected, 25.
Poland.....				In border province, Aug. 9, 1921: Cases, 8.
Porto Rico:				
Caguas.....	Aug. 7-13.....	3	2	
Portuguese West Africa:				
Angola— Luanda.....	June 5-18.....	5		
Straits Settlements:				
Singapore.....	June 26-July 2.....	2	2	
Syria:				
Alexandretta.....	July 31-Aug. 6.....	1		

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Rio de Janeiro.....	July 10-16.....	3		
Sao Paulo.....	June 13-26.....	4	2	
Do.....	June 27-July 10.....	5	2	
Canada:				
New Brunswick— Madawaska County.....	Aug. 7-13.....	1		
Colombia:				
Santa Marta.....	do.....			Present.
Cuba:				
Cienfuegos.....	do.....	1		
Dominican Republic.....				
La Ramona.....	Aug. 25.....			
San Pedro de Macoris.....	Aug. 19-25.....	40	2	In eastern Provinces, Aug. 25, 1921, 2,000 cases, estimated.
Spain:				Cases numerous.
India.....				On sugar estates in same Province, about 400 cases.
Bombay.....	July 3-9.....	11	7	June 5-25, 1921: Deaths, 958.
Calcutta.....	June 26-July 2.....	3	3	
Madras.....	July 17-23.....	5		
Rangoon.....	July 10-16.....	1		
Mexico:				
Vera Cruz.....	Aug. 1-7.....		1	
Portugal:				
Lisbon.....	July 24-Aug. 6.....	15		
Portuguese East Africa:				
Lourenco Marques.....	July 10-16.....	4		
Spain:				
Barcelona.....	July 7-20.....			
Valencia.....	July 31-Aug. 6.....	1	4	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.
Reports Received During Week Ended Sept. 9, 1921—Continued.
SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Straits Settlements:				
Singapore.....	July 10-16.....	1	1	
Tunis:				
Tunis.....	Aug. 6-12.....	1	2	
Turkey:				
Constantinople.....	July 24-30.....	1		
Union of South Africa:				
Cape Province.....	June 19-25.....			Outbreaks.
Do.....	June 26-July 2.....			Do.
Natal.....	June 19-25.....			Do.
Orange Free State.....	do.....			Do.
On vessel:				
S. S. Niagara.....	June 15.....	1		At Sydney, Australia, from Vancouver, via Fiji and New Zealand (Public Health Reports, Aug. 26, 1921, p. 2086).

TYPHUS FEVER.

Egypt:				
Alexandria.....	July 30-Aug. 5....	8	3	
Tunis:				
Tunis.....	July 30-Aug. 5....		1	
Turkey:				
Constantinople.....	July 17-30.....	12	1	
Union of South Africa:				
Cape Province.....	June 19-25.....			Outbreaks.
Do.....	June 26-July 2.....			Do.

YELLOW FEVER.

Mexico:				
Quintana Roo—				
Playa Obispo.....	Aug. 23.....	1		
Tuxpan district:				
Alamo.....	July 19.....	4	1	
Tuxpan.....	July 25.....	1	1	
Zapotal.....	July 14.....	1	1	

Reports Received from July 2 to Sept. 2, 1921.
CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	July 3-9.....		3	
India:				
Bombay.....	May 1-June 18.....	11	10	Mar. 6-June 4, 1921: Deaths, 43,173.
Do.....	June 26-July 2.....	8	4	
Calcutta.....	May 8-June 25.....	567	521	
Do.....	June 26-July 2.....	51	46	
Karachi.....	July 10-16.....	10	10	
Madras.....	May 15-June 25.....	3	2	
Do.....	June 26-July 16.....	6	2	
Rangoon.....	Apr. 24-June 25.....	18	17	
Do.....	June 26-July 9.....	10	5	
Indo-China:				
City—				
Cholon.....	June 6-12.....	5	4	Jan. 1-31, 1921: Cases, 80; deaths, 15. May 29-June 12, 1921: Cases, 251; deaths, 202.
Saigon.....	May 9-June 12.....	65	44	
Province—				
Anam.....	Jan. 1-31.....	42	2	In January, 1920: No cases.
Cambodia.....	do.....	8	2	January, 1920: Cases, 27; deaths, 14.
Cochin-China.....	do.....	18	9	January, 1920: Cases, 13; deaths, 10.
Tonkin.....	do.....	12	4	January, 1920: No cases.

September 9, 1921.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.
Reports Received from July 2 to Sept. 2, 1921—Continued.
CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands:				
Manila.....	May 22-June 25...	4	—	
Do.....	July 3-9.....	7	—	
Province—				
Batangas.....	June 12-18.....	2	1	
Laguna.....	June 19-25.....	1	—	
Pampanga.....	June 5-11.....	1	1	
Tarlac.....	June 19-25.....	1	1	
Poland:				
Baranowicze.....	Aug. 18.....	—	—	Present.
Bialystok.....	July 25.....	—	—	Do.
Pinsk.....	do.....	—	—	Do.
Russia:				
Districts—				
Kazan.....	Jan. 1-July 13.....	434	—	
Kharkov.....	do.....	257	—	
Kursk.....	do.....	528	—	
Moscow.....	do.....	286	—	
Orel.....	do.....	140	—	
Rjasan.....	do.....	120	—	
Saratov.....	do.....	7,005	—	
Simbirsk.....	do.....	814	—	
Tambov.....	do.....	1,396	—	
Voronezh.....	do.....	2,653	—	
Don Territory				
Kuban Territory.....	do.....	1,718	—	
Petrograd.....	July 6.....	6	—	
Rostov-on-Don.....	June 1.....	747	—	
Siam:				
Bangkok.....	Apr. 24-June 11.....	19	4	
Straits Settlements:				
Singapore.....	June 12-18.....	1	1	

PLAGUE.

Algeria:				
Aumale district.....	May 31-July 3.....	71	22	Native district about 140 kilo meters from Algiers.
Asia Minor:				
Smyrna.....	June 19-25.....	1	—	
Do.....	July 3-30.....	3	—	In suburbs.
Azores:				
St. Michael's Island.....	Aug. 13.....	5	3	At two localities, vicinity of Ponta Delgada.
Brazil:				
Bahia.....	May 15-June 18.....	3	2	
Maranhao.....	June 28.....	1	1	
British East Africa:				
Kenya Colony—				
Kisumu.....	Apr. 24-May 21.....	—	—	Present.
Ceylon:				
Colombo.....	May 8-June 11.....	2	2	
Do.....	June 26-July 9.....	2	1	Two cases rodent plague.
China:				
Amoy.....	May 15-June 25.....	7	2	
Do.....	July 3-9.....	—	3	
Foochow.....	May 15-21.....	—	—	Present.
Hongkong.....	Apr. 24-June 25.....	81	50	May 1-7, 1921: Plague rat found.
Manchuria—				
Harbin.....	May 3-22.....	46	—	
Ecuador:				
Guayaquil.....	May 1-June 15.....	10	1	
Egypt:				
City—				
Alexandria.....	May 21-June 24.....	10	3	Jan. 1-July 21, 1921: Cases, 220; deaths, 96.
Do.....	July 1-18.....	13	3	
Port Said.....	June 16-27.....	4	2	
Do.....	July 1-20.....	9	4	
Suez.....	May 20-June 30.....	9	5	One case pneumonic.
Do.....	July 1-18.....	5	2	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 2 to Sept. 2, 1921—Continued.

PLAQUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt—Continued.				
Province—				
Assiout	May 24-June 16	9	1	One case septicemic.
Beni-Souef	July 10	1		
Gharbieh	June 2-5	7		
Do	July 9-17	7		
Girgeh	July 6-13	5	4	
Minieh	May 23-June 10	2	1	
Do	July 13-20	5	3	
Hawaii:				
Kalopa	July 15-19	1	1	
Paauhau	May 21	1		
India				
Bombay	May 1-June 25	287	204	
Do	June 26-July 2	8	5	
Calcutta	May 8-June 18	11	11	
Karachi	May 8-June 25	18	14	
Do	June 26-July 2	1	1	
Madras Presidency	May 22-June 23	112	72	
Do	June 26-July 16	101	59	
Rangoon	Apr. 24-June 25	162	142	
Do	June 26-July 9	88	68	
Indo-China				
Saigon	May 23-June 12	4	1	
Madagascar:				
Tananaive	July 11			Present.
Mesopotamia:				
Bagdad	Apr. 1-May 31	32	35	
Mexico:				
Ciudad Victoria	June 7	1		In State of Tamaulipas: Case confirmed June 20, 1921.
Tampico	June 11-30	36		Infected rodents found, July 1-Aug. 7, 1921: 91.
Do	July 1-Aug. 7	20	7	Mar. 1-31, 1921: Cases, 76; deaths, 44. Apr. 1-30, 1921: Cases, 43; deaths, 30. June 1-30, 1921: Cases, 14; deaths, 10. July 1-15, 1921: Cases, 9; deaths, 3.
Peru				
Department—				
Arequipa	Mar. 1-31	2		At Mollendo.
Callao	do	7	1	At Callao.
Lambayeque	do	2	1	At Chiclayo.
Libertad	do	12	7	In 5 localities.
Lima	do	32	16	At Lima city, 20, cases, 13 deaths.
Piura	do	21	19	At Payta, Piura, and Sullana.
Ancash	Apr. 1-30	4	1	At Huarmey.
Arequipa	do	3	3	At Mollendo.
Callao	do	8		At Callao.
Lambayeque	do	1	1	At Chiclayo.
Libertad	do	16	5	In 5 localities.
Lima	do	6	3	In Lima city, 3 cases; 1 death.
Piura	do	5	7	At Payta, Sullana, and Talara.
Libertad—				
Salaverry	June 1-15	1		
Trujillo	do	2	3	
Lima—				
Lima	do	2	3	
Piura—				
Piura	do	1		
Talara	do	4	3	
Callao—				
Callao	June 16-30	1		
Do	July 1-15	5	1	
Lima—				
Lima	June 16-30	3	1	
Do	July 1-15	2	2	
Mollendo	do	2		
Porto Rico				Department of Arequipa.
Manati	July 17-23	1	1	Total plague-infected rats found from beginning of outbreak to July 9, 1921: 90.
Martin Pena	July 3-9	1		Suburb coextensive with San-turce.
Russia:				
Siberia—				
Vladivostok	May 1-31	141	145	

September 9, 1921.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.
Reports Received from July 2 to Sept. 2, 1921—Continued.
PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Senegal:				
Dakar.....	May 1-31.....	5.....	5.....	
Do.....	June 26-July 2.....	49.....	42.....	
Siam:				
Bangkok.....	Apr. 24-June 18.....	7.....	6.....	
Straits Settlements:				
Singapore.....	May 8-June 18.....	5.....	5.....	
Syria:				
Alexandretta.....	July 10-23.....	17.....	4.....	
Beirut.....	May 31-June 30.....	2.....	.....
Do.....	July 1-10.....	1.....	.....
Turkey:				
Constantinople.....	July 10-16.....	1.....	.....
On vessels:				
S. S. Kishenev.....	May 2.....	1.....	.....
S. S. Oreland.....				At Chefoo, China. Plague death en route. Vessel sent to quarantine, Kentucky Island, where to May 6 a total of 16 deaths was reported. (Public Health Reports, July 1, 1921, p. 1534.)
S. S. Ralph Moller.....	June 8.....	4.....	1.....	At Genoa, Italy, June 12, 1921, from La Plata, Argentina. Two fatal cases plague in crew en route.
S. S. Tenyo Maru.....				At Chefoo, China, from Vladivostok, Siberia. Three fatal cases en route. One case with fatal termination removed at Vladivostok.
				En route between Nagasaki and Kobe, Japan, June 28, 1921, 1 fatal case.

SMALLPOX.

Algeria:				
Algiers.....	May 1-June 30	3.....	.....
Asia Minor:				
Smyrna.....	May 22-28.....	1.....	.....
Do.....	July 24-30.....	2.....	.....	On the s. s. Nicholas.
Australia:				
Victoria—				
Geelong.....	May 5-16.....	2.....	.....	Mild.
Melbourne.....	Apr. 9-23.....	4.....	1.....	Mild epidemic.
Bolivia:				
La Paz.....	Apr. 1-30.....	5.....	4.....	
Brazil:				
Pernambuco.....	Mar. 28-May 22.....	28.....	4.....	
Rio de Janeiro.....	May 8-June 18.....	11.....	2.....	
Do.....	June 26-July 2.....	1.....	.....
Sao Paulo.....	May 23-June 12.....	3.....	.....
British East Africa:				
Kenya Colony—				
Zanzibar.....	May 8-14.....	12.....	4.....	Origin, India.
Bulgaria:				
Sofia.....	May 15-31.....	6.....	.....
Canada:				
Alberta—				
Calgary.....	May 26-June 18.....	3.....	.....
British Columbia—				
Vancouver.....	May 28-June 25.....	8.....	.....
Manitoba—				
Winnipeg.....	do.....	6.....	.....
Do.....	June 26-Aug. 3.....	5.....	.....
New Brunswick—				
Charlotte County.....	July 10-16.....	7.....	.....
Restigouche County.....	June 19-25.....	1.....	.....
Westmoreland County.....	June 26-July 2.....	2.....	.....
Nova Scotia—				
Sydney.....	June 5-18.....	2.....	.....
Do.....	June 26-July 2.....	4.....	.....

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.
Reports Received from July 2 to Sept. 2, 1921—Continued.
SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Ontario—				
Fort William and Port Arthur.....	Aug. 7-13.....	1		
Hamilton.....	June 12-18.....	3		
Do.....	July 3-9.....	1		
Kingston.....	June 5-11.....	1		
London.....	June 5-25.....	2		
Montreal.....	June 12-18.....	1		
Do.....	July 17-23.....	1		
North Bay.....	June 11-25.....	3		
Do.....	June 26-July 9.....	2		
Ottawa.....	June 12-25.....	21		
Do.....	June 26-Aug. 13.....	35		
At two localities in vicinity, 2 cases.				
Chile:				
Antofagasta.....	May 16-June 19.....	228	106	
Arica.....	May 31.....	2		
Mejillones.....	May 30-June 5.....			Present. Also at interior nitrate plants.
Valparaiso.....	June 26-July 2.....	4		
China:				
Amoy.....	May 8-June 4.....	4		June 5-25: Present.
Do.....	June 26-July 2.....	1		July 3-9: Present.
Antung.....	May 16-June 26.....	12	2	Present.
Canton.....	Apr. 1-30.....			Do.
Chungking.....	May 1-June 25.....			Do.
Do.....	June 26-July 2.....			Do.
Foochow.....	May 8-June 25.....			Do.
Do.....	June 26-July 2.....			Do.
Hankow.....	May 15-21.....	4	1	
Do.....	July 10-16.....	1		
Hongkong.....	Apr. 24-June 25.....	99	94	
Manchuria—				
Dairen.....	May 9-June 26.....	44	5	
Do.....	June 27-July 10.....	5		
Harbin.....	May 16-June 13.....	5		
Do.....	June 27-July 10.....	2		
Mukden.....	May 22-June 11.....			
Do.....	July 3-9.....			Do.
Nanking.....	May 8-June 25.....			Do.
Do.....	June 26-July 16.....			Do.
Shanghai.....	June 20-26.....	1		Do.
Do.....	July 3-9.....	1		Mission hospital.
Tientsin.....	May 8-June 25.....	31		
Do.....	June 26-July 9.....	5	1	
Tsingtau.....	May 9-June 12.....	4	1	
Chosen (Korea):				
Chemulpo.....	May 1-June 30.....	11	3	
Fusan.....	do.....	12	3	
Gensan.....	do.....	5	2	
Seoul.....	do.....	3		
Colombia:				
Santa Marta.....	June 5-25.....			Present.
Do.....	June 26-Aug. 5.....			Do.
Cuba:				
Antilla.....	June 5-26.....	7		
Do.....	June 26-Aug. 5.....	56		
Cienfuegos.....	do.....	1		
Matanzas.....	June 12-18.....	1	1	
Do.....	July 3-31.....	4	2	
Nuevitas.....	July 4-10.....	6		
Santiago.....	June 1-30.....	28	2	
Do.....	July 1-31.....	20	1	
Ecuador:				
Guayaquil.....	May 1-June 30.....	31		
Do.....	July 1-15.....	10		
Egypt:				
Cairo.....	Mar. 19-Apr. 29.....	2	1	
Port Said.....	Apr. 2-May 20.....	40		
Finland.....	May 1-15.....	1		
France:				
Brest.....	May 22-June 4.....	18		
Rouen.....	May 1-29.....	2		
Germany.....				Apr. 24-May 28, 1921: Cases, 12. Additional, Apr. 17-May 7, 1921: Cases, 57; deaths, 7.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.
Reports Received from July 2 to Sept. 2, 1921—Continued.
SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain:				
Nottingham.....	May 29-June 4.....	1	.....
Do.....	July 3-16.....	6	.....
Queenstown.....	July 3-9.....	1	.....
Southampton.....	June 26-July 2.....	1	.....
Greece:				
Saloniki.....	June 6-12.....	.....	1	
Haiti:				
Cape Haitien.....	June 19-25.....	24	2	
Do.....	June 26-Aug. 6.....	96	7	
India				
Bombay.....	May 1-June 25.....	84	50	
Do.....	June 26-July 2.....	8	8	
Calcutta.....	May 8-June 25.....	8	8	
Do.....	June 26-July 2.....	3	3	
Karachi.....	May 29-June 25.....	25	17	
Do.....	June 26-July 2.....	2	2	
Madras.....	May 8-June 25.....	33	11	
Do.....	June 26-July 16.....	12	7	
Rangoon.....	Apr. 24-June 4.....	20	3	
Indo-China:				
City—				
Saigon.....	May 9-15.....	2	1	
Province—				
Annam.....	Jan. 1-31.....	35	.....	January, 1920: Cases, 16; deaths, 3.
Cambodia.....	do.....	21	3	January, 1920: Cases, 139; deaths, 54.
Cochin China.....	do.....	19	12	January, 1920: Cases, 8; deaths, 1.
Tonkin.....	do.....	27	.....	January, 1920: Cases, 224; deaths, 43.
Italy:				
Catania.....				
Do.....	July 18-24.....	.....	
Genoa.....	Apr. 1-May 31.....	11	.....
Do.....	July 4-10.....	2	.....
Messina.....	May 23-June 26.....	2	1	
Do.....	July 11-17.....	1	.....	In Province, July 4-17, 1921: Cases, 9.
Palermo.....	May 18-June 21.....	7	1	
Milan.....	Apr. 1-30.....	2	.....
Japan:				
Kobe.....	May 21-June 26.....	3	.....
Nagasaki.....	May 23-June 26.....	6	1	
Taiwan Island.....	July 1-10.....	1	.....
Java:				
East Java—				
Surabaya.....	June 19-25.....	2	.....
West Java—				
Bandung.....	May 27-June 3.....	1	.....
Batavia.....	May 6-June 23.....	17	15	
Do.....	July 1-7.....	2	2	
Buitenzorg.....	Apr. 29-June 23.....	16	.....
Garoet.....	May 6-12.....	1	.....
Krawang.....	Apr. 29-June 30.....	33	5	
Lebak.....	Apr. 29-May 26.....	12	2	
Pandeglang.....	June 3-30.....	2	1	
Jugoslavia.....				
Mesopotamia:				
Bagdad.....	Apr. 1-May 31.....	3	1	
Mexico:				
Tampico.....	July 11-20.....	1	.....
Chihuahua.....	May 23-June 27.....	.....	3	
Mexico City.....	May 15-June 25.....	246	.....	Including municipalities in Federal District. Do.
Do.....	June 26-July 23.....	96	.....
San Luis Potosi.....	July 17-Aug. 6.....	.....	2	
Vera Cruz.....	June 13-19.....	.....	1	
Do.....	July 11-17.....	.....	1	
Panama.....				
Canal Zone.....	Jan. 1-June 10.....	2	.....
Colon.....	do.....	111	.....
Panama.....	Jan. 1-July 25.....	54	.....	Jan. 1-July 25, 1921: Cases, 200, of which 33 were non residents

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.
Reports Received from July 2 to Sept. 2, 1921—Continued.
SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Poland:				Mar. 1-Apr. 30, 1921; Cases, 1,117; deaths, 142.
District—				
Bialystok.....	Mar. 1-Apr. 30.....	3.....	.....
Cracovia.....	do.....	56.....	6.....	
Kielce.....	do.....	180.....	26.....	
Leopol.....	do.....	52.....	16.....	
Lodz.....	do.....	72.....	9.....	
Lublin.....	do.....	397.....	30.....	
Posen.....	do.....	26.....	2.....	
Silesia.....	do.....	10.....	.....
Stanislawow.....	do.....	30.....	5.....	
Tarnopol.....	do.....	156.....	31.....	
Warsaw.....	do.....	36.....	4.....	
Warsaw City.....	do.....	90.....	13.....	
Portugal:				In Taschen.
Lisbon.....	May 15-June 25.....	34.....	.....
Do.....	June 25-July 2.....	2.....	.....
Oporto.....	June 19-25.....	1.....	.....
Portuguese East Africa:				
Lourenco Marques.....	May 8-28.....	8.....	.....
Rumania:				
District—				
Hotin.....	Apr. 1-30.....	40.....	9.....	
Orhei.....	Mar. 1-31.....	2.....	.....
Russia:				
Province—				
Estonia.....	Apr. 1-June 30.....	9.....	.....
Latvia.....	Apr. 1-May 31.....	41.....	.....
Siberia—				
Vladivostok.....	June 1-30.....	1.....	.....
Senegal:				
Dakar.....	May 1-31.....	1.....	1.....	
Spain:				
Barcelona.....	May 12-June 22.....	13.....	.....
Madrid.....	June 1-30.....	2.....	.....
Malaga.....	May 1-June 30.....	57.....	.....
Tarragona.....	May 9-15.....	1.....	.....
Valencia.....	May 22-28.....	1.....	.....
Do.....	July 2-23.....	6.....	1.....	
Straits Settlements:				
Singapore.....	June 12-18.....	1.....	.....
Switzerland:				
Zurich.....	May 28-June 11.....	10.....	.....
Do.....	July 3-16.....	3.....	.....
Syria:				
Aleppo.....	Apr. 9-16.....	.....	.....
Beirut.....	May 10-30.....	1.....	1.....	Present.
Tunis:				
Tunis.....	May 30-June 17.....	2.....	3.....	
Do.....	July 2-29.....	6.....	4.....	
Turkey:				
Constantinople.....	June 12-25.....	5.....	.....
Do.....	June 26-July 2.....	6.....	.....
Union of South Africa:				
Cape Province.....	Apr. 24-June 4.....	.....	.....	Outbreak.
Natal.....	Apr. 24-June 18.....	.....	.....	Do.
Orange Free State.....	May 29-June 18.....	.....	.....	Do.
Transvaal.....	May 22-June 18.....	.....	.....	Do.
On vessel:				
S. S. Niagara.....	June 1.....	1.....	.....	At Sydney, Australia, from Vancouver via Fiji and New Zealand.

TYPHUS FEVER.

Algeria:				
Algiers.....	May 1-June 30.....	109.....	25.....	
Oran.....	May 22-June 30.....	35.....	28.....	
Do.....	July 1-31.....	15.....	12.....	
Asia Minor:				
Smyrna.....	June 12-18.....	1.....	.....	In district.
Bolivia:				
La Paz.....	Apr. 1-30.....	32.....	39.....	

September 9, 1921.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**Reports Received from July 2 to Sept. 2, 1921—Continued****TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	June 19-25.....	1	1	
Porto Alegre.....	do.....		3	
Chile:				
Concepcion.....	Apr. 12-June 20.....		8	
Valparaiso.....	Mar. 27-May 28.....		4	
Do.....	June 26-July 2.....		2	
China:				
Antung.....	May 30-June 5.....	1		
Do.....	June 27-July 10.....	6		
Hankow.....	May 22-June 11.....	3		
Manchuria—				
Harbin.....	May 23-29.....	1		
Do.....	July 4-10.....	1		
Chosen (Korea):				
Chemulpo.....	June 1-30.....	2		
Fusan.....	May 1-31.....	1		
Gensan.....	May 1-June 30.....	4		
Seoul.....	May 1-31.....	1		
Czechoslovakia:				
Prague.....	June 5-26.....	5	2	
Egypt:				
Alexandria.....	May 21-June 23.....	21	8	
Do.....	June 24-July 22.....	12	4	
Cairo.....	Mar. 19-May 27.....	657	62	
Port Said.....	Apr. 2-May 13.....	8	2	
Finland.....	May 1-15.....	5		
Germany:				
Hamburg.....	May 27-June 4.....	1		
Great Britain:				
Dublin.....	May 29-June 4.....	1		
Greece:				
Saloniki.....	May 23-June 26.....	21	6	
Do.....	June 27-July 3.....	1		
Hungary.....				
Japan:				
Nagasaki.....	May 23-June 5.....	7	2	
Jugoslavia:				
Belgrade.....	May 1-14.....	6		
Zagreb.....	June 19-25.....	3		
Do.....	July 10-16.....	2		
Mesopotamia:				
Bagdad.....	May 1-31.....	1	3	
Mexico:				
Mexico City.....	May 15-June 25.....	102		Including municipalities in Federal District.
Do.....	June 26-July 23.....	69		Present.
San Luis Potosi.....	July 31-Aug. 6.....			Mar. 1-Apr. 30, 1921: Cases, 11,489; deaths, 1,131.
Poland:				
District—				
Bialystok.....	Mar. 1-Apr. 30.....	853	45	
Cracovia.....	do.....	603	90	
Kielce.....	do.....	848	62	
Leopol.....	do.....	2,508	277	
Lodz.....	do.....	521	53	
Lublin.....	do.....	1,446	83	
Posen.....	do.....	77	5	
Silesia.....	do.....	26		
Stanislawow.....	do.....	1,557	232	In Teschen.
Tarnopol.....	do.....	1,855	194	
Warsaw.....	do.....	972	61	
Warsaw city.....	do.....	223	29	
Portugal:				
Oporto.....	July 12-18.....	1		
Rumania:				
District—				
Hotin.....	Apr. 1-30.....	107	10	
Kishinev.....	Apr. 1-June 30.....	89		
Orhei.....	Mar. 1-May 30.....	146		
Russia:				
Province—				
Estonia.....	Apr. 1-June 30.....	113		
Latvia.....	Apr. 1-May 31.....	417		
Siberia—				
Vladivostok.....	Mar. 1-June 30.....	5	3	
Spain:				
Madrid.....	May 1-June 30.....		3	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.
Reports Received from July 2 to Sept. 2, 1921—Continued.
TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Syria:				
Beirut.....	May 20-June 10.....	1	1	
Tunis:				
Tunis.....	June 11-17.....		3	
Turkey:				
Constantinople.....	May 22-June 18.....	11	.....
Do.....	June 26-July 9.....	7	.....
Union of South Africa:				
Cape Province.....				
Capetown.....	May 13-19.....	10	3	
East London.....	May 22-June 18.....	1	1	At native cantonment in vicinity.
Orange Free State.....				
Venezuela:				
Maracaibo.....	June 21-27.....		1	
On vessel:				
S. S. Norden.....	Aug. 18.....	1	.....	At Marcus Hook Quarantine, Pa., from Tampico, Mexico, via Nuevitas, Cuba.

YELLOW FEVER.

British Honduras:				
Belize.....	Aug. 22.....	3	1	
Mexico:				
Alamo.....	June 1-30.....	10	.....	State of Vera Cruz.
Tampico.....	July 11-17.....	3	2	
Vera Cruz:				
Do.....	June 13-27.....	7	.....
July 25-31.....		1	.....
Peru:				
Department—				
Lambayeque—				
Chiclayo.....	Mar. 1-31.....	20	10	
Chongollape.....	do.....	2	2	
Forreñafe.....	do.....		1	
Lambayeque.....	do.....	15	5	
Monseñor.....	do.....	18	4	
Motupe.....	do.....	1	1	
Pomaica.....	do.....	5	1	
Villa Eten.....	do.....	5	1	
Callao—				
Callao.....	Apr. 1-30.....	1	.....	At quarantine station. From Chiclayo.
Lambayeque—				
Chiclayo.....	do.....	23	5	
Chongollape.....	do.....	10	1	
Jayanca.....	do.....	5	2	
Lambayeque.....	do.....	5	5	
Monseñor.....	do.....	8	5	
Motupe.....	do.....	45	11	
Olmos.....	do.....	2	4	
Villa Eten.....	do.....	2	.....
Zana.....	do.....	1	.....
Libertad—				
Guadalupe.....	do.....	2	.....
Pueblo Nuevo.....	do.....	1	1	
Trujillo.....	do.....	1	1	Country.
Lambayeque—				
Chiclayo.....	June 1-15.....	4	3	
Monseñor.....	do.....	3	.....
Pacora.....	do.....	1	.....
Libertad—				
Casa Grande.....	do.....	1	.....	Farm.
Pacanga.....	do.....	1	1	
Paijan.....	do.....	3	4	
Trujillo.....	do.....	1	1	
Libertad—				
Pacasmayo.....	July 1-15.....	1	.....
Pacanga.....	June 16-30.....	1	1	
Paijan.....	do.....	10	3	
Do.....	July 1-15.....	1	.....